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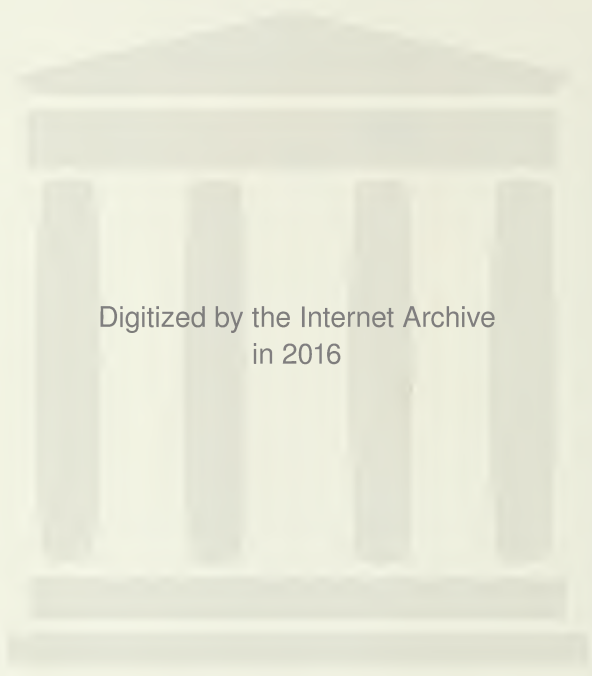


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LONG TERM POWER SALES AGREEMENT

BETWEEN

THE CITY AND COUNTY OF SAN FRANCISCO

AND

THE MODESTO IRRIGATION DISTRICT

1. PARTIES

THIS AGREEMENT is made by and between the CITY AND COUNTY OF SAN FRANCISCO, a California municipal corporation, hereinafter called "City", acting through its Public Utilities Commission and Board of Supervisors, and the MODESTO IRRIGATION DISTRICT, a California irrigation district, hereinafter called "Modesto", acting through its Board of Directors, hereinafter sometimes referred to individually as "Party" and collectively as "Parties".

2. RECITALS

This contract is made with reference to the following facts, among others:

2.1 City is the owner and operator of a certain water supply and hydroelectric power system known as Hetch Hetchy Project, situated in the east central part of California.

1 2.2 Modesto owns and operates an electric generation,
2 transmission and distribution system and provides, distributes
3 and sells Power to consumers within and adjacent to its legally
4 defined boundaries.

5
6 2.3 Under the provisions of the Congressional grant known
7 as the Raker Act, 38 Stat. 242 (1913), Modesto and Turlock
8 purchase Power at cost from City for certain specified purposes
9 (Class 1 Power).

10
11 2.4 Modesto and Turlock also purchase, by right of
12 contract, Power at negotiated rates from City (Class 3 Power).

13
14 2.5 The Parties previously have entered into a power sales
15 agreement for Class 1 Power and Class 3 Power entitled AGREEMENT
16 BETWEEN THE CITY AND COUNTY OF SAN FRANCISCO AND THE MODESTO
17 IRRIGATION DISTRICT FOR SALE AND PURCHASE OF ELECTRIC POWER,
18 dated June 10, 1985, which will expire December 31, 1987 (Interim
19 Agreement). Given the time necessary for approval processes and
20 technical implementation of this Agreement, it will be necessary
21 to separately contract for an extension of the Interim Agreement
22 through March 31, 1988 concurrent with the approval of this
23 Agreement.

24
25 2.6 City currently purchases electric service from Pacific
26 Gas and Electric Company which, among other things, supports
27 City's deliveries of Power to Modesto and Turlock.

1 2.7 Modesto and Turlock have entered into an AGREEMENT ON
2 THE ALLOCATION OF HETCH HETCHY POWER BETWEEN MODESTO IRRIGATION
3 DISTRICT AND TURLOCK IRRIGATION DISTRICT, dated May 28, 1982, in
4 which they have agreed on a procedure for allocating between them
5 the Hetch Hetchy Power sold to them by City.

6
7 2.8 The Parties desire to enter into a new contract to
8 become effective upon expiration of the Interim Agreement as
9 extended under which Modesto will continue to purchase Power from
10 City.

11
12 3. AGREEMENT

13
14 For and in consideration of the mutual covenants and
15 conditions hereinafter set forth, the Parties agree as follows:

16
17 4. DEFINITIONS

18
19 Whenever used herein, including all appendices and
20 exhibits hereto, the following terms, when initially capitalized,
21 shall for the purpose of this Agreement have the following
22 respective meanings. The singular of a term shall include the
23 plural and the plural shall include the singular.

24
25 4.1 Additional Firm Capacity: Ninety-eight (98) percent of
26 the difference, in kilowatts, between PDC and the sum of
27 (i) scheduled City Municipal Demand, (ii) Districts' Annual Firm
28 Capacity divided by ninety-eight hundredths (0.98), and

1 (iii) Optional Monthly Firm Capacity divided by ninety-eight
2 hundredths (0.98), for any determination period.

3
4 4.2 Agreement: This LONG TERM POWER SALES AGREEMENT
5 BETWEEN THE CITY AND COUNTY OF SAN FRANCISCO AND THE MODESTO
6 IRRIGATION DISTRICT.

7
8 4.3 Airport Tenants: The tenants at the San Francisco
9 International Airport whose electric service is purchased from
10 City.

11
12 4.4 Allocation Agreement: The agreement between the
13 Districts, dated May 28, 1982, entitled AGREEMENT ON THE
14 ALLOCATION OF HETCH HETCHY POWER BETWEEN MODESTO IRRIGATION
15 DISTRICT AND TURLOCK IRRIGATION DISTRICT, as it may be amended
16 from time to time.

17
18 4.5 Annual Forecast: The forecast to be prepared each year
19 by City, including City's forecast of City Annual Maximum Demands
20 and City Monthly Maximum Demands, which are used, among other
21 things, for determining Districts' Annual Firm Capacity for the
22 fifth Year subsequent to the forecast and Optional Monthly Firm
23 Capacity, as more fully described in Section 10.

24
25 4.6 Assigned Industrial Customers: PG&E retail customers
26 assigned to City pursuant to the City-PG&E Agreement.

27
28 4.7 City: The City and County of San Francisco.

1 4.8 City Annual Maximum Demand: City's forecast of the
2 maximum City Municipal Demand, including losses to the Hetch
3 Hetchy Bus, for a Year, expressed in kilowatts, as provided in
4 the Initial Forecast and Notice or Annual Forecast.

5
6 4.9 City Monthly Maximum Demand: City's forecast of the
7 maximum City Municipal Demand, for each month, including losses
8 to the Hetch Hetchy Bus, expressed in kilowatts, as provided in
9 the Initial Forecast and Notice or Annual Forecast.

10
11 4.10 City Municipal Demand: The rate of use of City
12 Municipal Energy, including losses to the Hetch Hetchy Bus,
13 during any determination period, expressed in kilowatts.

14
15 4.11 City Municipal Energy: The electric energy required
16 for pumping City's water supply and for City's actual municipal
17 purposes, including losses to the Hetch Hetchy Bus, for any
18 determination period, expressed in kilowatthours.

19
20 4.12 City Municipal Load: City Municipal Demand and City
21 Municipal Energy for any determination period.

22
23 4.13 City-PG&E Agreement: The AGREEMENT BETWEEN CITY AND
24 COUNTY OF SAN FRANCISCO AND PACIFIC GAS AND ELECTRIC COMPANY, to
25 be effective as of April 1, 1988.

26
27 4.14 City's Transmission Facilities: Those rights-of-way,
28 transmission lines, and appurtenant equipment, owned by City,

1 extending from the Hetch Hetchy Bus to certain points of delivery
2 to Districts and Norris Industries and to points of
3 interconnection with PG&E.
4

5 4.15 Class 1 Power: That Power which, pursuant to Section
6 9(1) of the Raker Act, is sold at cost by City to Modesto.
7

8 4.16 Class 3 Power: That portion of Districts' Power
9 purchased by Modesto from City that is not Class 1 Power.
10

11 4.17 Demand: The rate of use of electrical energy, in
12 kilowatts, during any determination period.
13

14 4.18 Districts: The Modesto Irrigation District and the
15 Turlock Irrigation District.
16

17 4.19 Districts' Annual Firm Capacity: Ninety-eight (98)
18 percent of the difference, in kilowatts, between PDC and City
19 Annual Maximum Demand for the same Year.
20

21 4.20 Districts' Annual Firm Energy: That amount of energy,
22 in kilowatthours, in any Year, equal to Districts' Annual Firm
23 Capacity for such Year taken at an annual capacity factor of
24 sixty-five (65) percent.
25

26 4.21 Districts' Excess Capacity: The amount of Hetch Hetchy
27 Excess Capacity, in kilowatts, available for use by Districts,
28 equal to ninety-eight (98) percent of the greater of (i) Hetch

1 Hetchy Excess Capacity in excess of that required for City
2 schedules for Airport Tenants, or (ii) one-half of Hetch Hetchy
3 Excess Capacity, as more fully described in Section 8.
4

5 4.22 Districts' Excess Energy: The amount of Hetch Hetchy
6 Excess Energy, in kilowatthours, available for use by Districts,
7 up to ninety-eight (98) percent of the greater of (i) the
8 difference between Hetch Hetchy Excess Energy and Airport
9 Tenants' energy requirements or (ii) one-half of Hetch Hetchy
10 Excess Energy, as more fully described in Section 7.4.
11

12 4.23 Districts' Firm Capacity: The sum of Districts' Annual
13 Firm Capacity, and the amounts of Optional Monthly Firm Capacity
14 and Additional Firm Capacity which Districts have committed to
15 purchase during any determination period, expressed in
16 kilowatts.
17

18 4.24 Districts' Firm Energy: That portion of Districts'
19 Annual Firm Energy, in kilowatthours, for any determination
20 period.
21

22 4.25 Districts' Firm Power: Districts' Firm Energy and
23 Districts' Firm Capacity for any determination period.
24

25 4.26 Forecast Period: The period covered by the Initial
26 Forecast and Notice or the Annual Forecast.
27
28

1 4.27 Governing Boards: City's Public Utilities Commission
2 and Board of Supervisors, as may be applicable, and Modesto's
3 Board of Directors.

4
5 4.28 Hetch Hetchy Bus: The generator busses of the
6 hydroelectric generating facilities of the Project, deemed to be
7 a common bus for purposes of this Agreement.

8
9 4.29 Hetch Hetchy Excess Capacity: Hetch Hetchy Generating
10 Capacity which is in excess of the sum of the schedules for
11 (i) City Municipal Demand up to City Monthly Maximum Demand and
12 (ii) Districts' energy as scheduled up to Districts' Firm
13 Capacity divided by ninety-eight hundredths (0.98), during any
14 determination period, expressed in kilowatts.

15
16 4.30 Hetch Hetchy Excess Energy: Energy, in kilowatthours,
17 generated from the Project which is in excess of the sum of
18 (i) City Municipal Energy and (ii) Districts' Firm Energy divided
19 by ninety-eight hundredths (0.98), applicable to any
20 determination period.

21
22 4.31 Hetch Hetchy Firm Capacity: That capacity, in
23 kilowatts, equal to PDC, which is available at any time, either
24 from the Project or through purchases by City from third parties.

25
26 4.32 Hetch Hetchy Firm Energy: Energy, in kilowatthours,
27 generated from the Project or purchased by City for City
28 Municipal Energy and Districts' Firm Energy.

1 4.33 Hetch Hetchy Firm Power: Hetch Hetchy Firm Capacity
2 and Hetch Hetchy Firm Energy.

3
4 4.34 Hetch Hetchy Generating Capacity: That capacity, in
5 kilowatts, which represents the capability of the Project to
6 generate energy during any determination period.

7
8 4.35 Hetch Hetchy Project: The hydroelectric generating
9 facilities including associated water storage and conveyance
10 facilities in the Tuolumne River watershed and associated
11 transmission facilities owned by City as now developed or as may
12 be developed in the future.

13
14 4.36 Initial Forecast and Notice: The forecast prepared by
15 City and notice provided by Modesto, contained in Appendix A,
16 including City's forecast of City Annual Maximum Demand and City
17 Monthly Maximum Demand, which is used, among other things, for
18 determining Districts' Annual Firm Capacity and Optional Monthly
19 Firm Capacity which is applicable to the first five years (60
20 calendar months) of this Agreement, and Modesto's notice to
21 purchase Optional Monthly Firm Capacity during that period.

22
23 4.37 Modesto: The Modesto Irrigation District.

24
25 4.38 Modesto's Additional Firm Capacity: That portion of
26 Modesto's Allocated Entitlement of Additional Firm Capacity, in
27 kilowatts, which Modesto has committed to purchase during any
28 determination period.

1 4.39 Modesto's Allocated Entitlement: That portion of
2 Power, Spinning Reserve and City's Transmission Facilities
3 available to Districts from City pursuant to this Agreement to
4 which Modesto is entitled under the Allocation Agreement, as such
5 amounts may be adjusted pursuant to Section 7.

6
7 4.40 Modesto's Annual Firm Capacity: Modesto's Allocated
8 Entitlement of Districts' Annual Firm Capacity, expressed in
9 kilowatts.

10
11 4.41 Modesto's Annual Firm Energy: The amount of energy, in
12 kilowatthours, in a Year which is equal to Modesto's Annual Firm
13 Capacity for such Year taken at an annual capacity factor of
14 sixty-five (65) percent.

15
16 4.42 Modesto's Energy: The sum of Modesto's Firm Energy and
17 Modesto's Excess Energy for any determination period.

18
19 4.43 Modesto's Excess Capacity: Modesto's Allocated
20 Entitlement of Districts' Excess Capacity, expressed in
21 kilowatts.

22
23 4.44 Modesto's Excess Energy: Modesto's Allocated
24 Entitlement of Districts' Excess Energy which Modesto has
25 committed to purchase, expressed in kilowatthours.

26
27 4.45 Modesto's Firm Capacity: The sum, in kilowatts, of
28 Modesto's Annual Firm Capacity, Modesto's Optional Monthly Firm

1 Capacity and Modesto's Additional Firm Capacity, for any
2 determination period.

3
4 4.46 Modesto's Firm Energy: That portion of Modesto's
5 Annual Firm Energy, in kilowatthours, for any determination
6 period.

7
8 4.47 Modesto's Optional Monthly Firm Capacity: That portion
9 of Modesto's Allocated Entitlement of Optional Monthly Firm
10 Capacity, in kilowatts, which Modesto has committed to purchase.

11
12 4.48 Norris Industries: Riverbank Army Ammunition Plant, a
13 resale customer of City located in Riverbank, California, owned
14 by the United States Department of Defense and operated by Norris
15 Industries or its successors.

16
17 4.49 Optional Monthly Firm Capacity: Ninety-eight (98)
18 percent of the difference, in kilowatts, between City Annual
19 Maximum Demand of a Year and City Monthly Maximum Demand for a
20 referenced month in the same Year.

21
22 4.50 PDC: Project Dependable Capacity.

23
24 4.51 PG&E: The Pacific Gas and Electric Company.

25
26 4.52 Parties: City and Modesto.

27
28 4.53 Party: City or Modesto

1 4.54 Points of Delivery: Those points at which City may
2 deliver power to Modesto pursuant to Section 12.

3
4 4.55 Power: Both electric capacity and energy.

5
6 4.56 Project: The Hetch Hetchy Project.

7
8 4.57 Project Dependable Capacity: 260,000 kilowatts,
9 determined at the Hetch Hetchy Bus, subject to adjustment and
10 redetermination pursuant to Section 6.

11
12 4.58 Prudent Utility Practice: Those practices, methods and
13 procedures, as modified from time to time, that are currently and
14 commonly used by electric utilities to design, construct and
15 operate electric power facilities dependably, reliably, safely,
16 efficiently and economically, with due regard to the state of the
17 art in the electric power industry, as applied in the State of
18 California or in the Western Systems Coordinating Council area,
19 whichever better represents the application of the considerations
20 above. Such practices, methods and procedures are not limited to
21 the optimum, but rather to any within the scope of those
22 currently and commonly used.

23
24 4.59 Raker Act: That Act of Congress, 38 Stat. 242 (1913).

25
26 4.60 Spinning Reserve: Available unloaded generating
27 capacity connected to the system and ready to accept load
28 promptly.

1 4.61 Turlock: The Turlock Irrigation District.

2
3 4.62 Uncontrollable Forces: Those conditions or
4 circumstances described in Section 21.
5

6 4.63 Week: 0000 hours on Sunday through 2400 hours on the
7 following Saturday.
8

9 4.64 Work Day: All days except Saturdays, Sundays and PG&E
10 designated holidays.
11

12 4.65 Year: Calendar year.
13

14 5. TERM
15

16 This Agreement shall become effective at 0000 hours on
17 April 1, 1988 and shall continue in effect until 2400 hours on
18 June 30, 2015.
19

20 6. HETCH HETCHY PROJECT DEPENDABLE CAPACITY
21

22 6.1 PDC Level
23

24 The PDC of the Project shall be 260,000-kW until
25 such time as it may be redetermined or adjusted in accordance
26 with the provisions of this Section 6.
27
28

1 6.2 Redetermination of PDC
2

3 6.2.1 Either Party may request a redetermination
4 of PDC by giving written notice to the other Party upon the
5 occurrence of any of the events listed below.
6

7 (a) Additions or modifications that may result in an
8 increase in the generating capability of the Project.
9

10 (b) Changes in water delivery requirements of the San
11 Francisco Water Department which on a cumulative basis
12 substantially inhibit the ability of the Hetch Hetchy Project to
13 produce Project Dependable Capacity.
14

15 (c) Administrative, judicial or legislative actions by
16 other than the Parties to this Agreement which affect the
17 generating or operating capability of the Project.
18

19 6.2.2 In the event that a Party requests
20 redetermination of PDC pursuant to Section 6.2.1, or if the
21 Parties mutually agree, such agreement will not unreasonably be
22 withheld, that any of the events listed in Section 6.2.1 is
23 likely to occur, and a Party requests redetermination of PDC by
24 giving written notice, the Parties shall redetermine PDC and
25 establish the effective date, consistent with Section 6.2.3, of
26 such redetermined PDC. City shall inform Turlock and PG&E of any
27 initiation of a redetermination of PDC which occurs under this
28 Section 6.2.2. If , after six (6) months from the date notice is

1 given pursuant to Sections 6.2.1 or 6.2.2 the Parties cannot
2 agree on the redetermined level of PDC, such redetermination of
3 PDC shall be submitted to arbitration pursuant to Section 6.5.
4

5 6.2.3 Except as provided in Section 6.3, any
6 change resulting from a redetermination of PDC made pursuant to
7 this Agreement shall become effective three (3) years following
8 the date on which written notice is provided pursuant to Sections
9 6.2.1 or 6.2.2 or upon actual occurrence of the event or events,
10 whichever is later. Until such time as a new level of PDC is
11 effective the then current PDC shall remain in effect.
12

13 6.2.4 The PDC established by a redetermination
14 shall be determined consistent with the methodology utilized in
15 the initial determination of PDC as provided in Appendix H, based
16 on revised assumptions as mutually agreed to by the Parties or
17 otherwise determined through arbitration, reflecting only changes
18 that resulted from the occurrence of any of the events cited in
19 Section 6.2.1.
20

21 6.2.5 A Party may delay the request for
22 redetermination pursuant to Section 6.2.1 until such time as the
23 cumulative effect of the occurrences or events under Section
24 6.2.1 is significant. Any redetermination shall be limited to
25 the incremental or cumulative incremental impact(s) of the
26 circumstance(s) giving rise to redetermination.
27
28

1 6.2.6 If a critical water period subsequent to
2 1976-1977 occurs and is applied by PG&E in the determination of
3 dependable capacity of PG&E hydroelectric plants, then such
4 critical water period may also be utilized in the redetermination
5 of PDC, but the application itself shall not be a cause for
6 redetermination of PDC.
7

8 6.2.7 After PDC has been redetermined, the
9 Parties shall amend, as may be appropriate, Section 6.1,
10 Appendix F, Appendix G, and Appendix H, and other sections of the
11 Agreement consistent with such redetermination. Such amended
12 Sections and Appendices will become effective as of the date the
13 redetermined level of PDC becomes effective pursuant to Section
14 6.2.3.
15

16 6.3 Automatic Adjustment of PDC 17

18 6.3.1 If any generating unit or units of the
19 Project or City's Transmission Facilities are out of service or
20 operating at reduced levels due to an occurrence or event
21 resulting from Uncontrollable Forces, as provided in Section 21,
22 City shall promptly provide Modesto written notice of such
23 occurrence or event. If such full or partial outage continues
24 for a period greater than three (3) months from the date of such
25 notice, PDC shall be reduced automatically at the end of that
26 three (3) month period in accordance with Appendix F except as
27 provided in Section 6.3.2.
28

1 6.3.2 Prior to the close of the three (3) month
2 period following the occurrence or event described in Section
3 6.3.1, City shall determine the operational capacity of the
4 remaining City generating units. Such determination shall be
5 consistent with the operating criteria in Appendix G and will be
6 determined on the basis of available generating units and
7 transmission facilities, reservoir levels, known hydrological
8 conditions and operational performance. If such operational
9 capacity is higher than that amount of capacity resulting from an
10 automatic adjustment pursuant to Section 6.3.1, such higher
11 capacity shall become the PDC for at least three (3) additional
12 months beyond the period described in Section 6.3.1, except as
13 hereinafter provided. However, nothing in this Section 6.3.2
14 will result in a PDC higher than that which was in effect prior
15 to the occurrence of the event or events described in Section
16 6.3.1. Upon the close of the second three-month period, or such
17 longer period as may be available, or if City fails to maintain
18 or demonstrate operational capacity higher than that resulting
19 from an automatic adjustment pursuant to Section 6.3.1, PDC shall
20 be automatically adjusted pursuant to Section 6.3.1 and
21 Appendix F.

22
23 6.3.3 Upon restoration to service of the portion
24 of the Project which caused an automatic adjustment of PDC
25 pursuant to Section 6.3.1, PDC will be immediately readjusted to
26 a level consistent with the extent of such restoration. City
27 shall notify Modesto of the effective date and the amount of
28 restoration prior to any such restoration of PDC.

1 6.3.4 If, within three (3) months, after a
2 restoration of the level of PDC pursuant to Section 6.3.3, the
3 same generating unit or units of the Project or City's
4 Transmission Facilities are out of service or operating at
5 reduced levels due to the same or related occurrence or event
6 which led to the original automatic adjustment of PDC, PDC shall
7 be reduced to the level prior to restoration on the first day of
8 the month after City gives written notice of such reduction.
9

10 6.3.5 If either Party believes, based upon facts
11 then known, that any generating unit or units of the Project or
12 City's Transmission Facilities will be out of service for a
13 period of longer than three (3) years from the date of notice of
14 the full or partial outage described in Section 6.3.1, such Party
15 may initiate a request for redetermination of PDC consistent with
16 the methodology utilized in the initial determination of PDC as
17 provided in Appendix H, based on revised assumptions as mutually
18 agreed to by the Parties, reflecting only changes that resulted
19 from the occurrence of the event cited in Section 6.3.1. If a
20 critical water period subsequent to 1976-1977 occurs and is
21 applied by PG&E in the determination of dependable capacity of
22 PG&E hydroelectric plants, then such critical water period may
23 also be utilized in the redetermination of PDC. If, after six
24 (6) months from the date of the request pursuant to this Section
25 6.3.5 the Parties cannot agree on the redetermined level of PDC,
26 such redetermination of PDC shall be submitted to arbitration
27 pursuant to Section 6.5.
28

1 6.3.6 Changes, if any, to PDC during the three
2 (3) year period from the date of notice described in Section
3 6.3.1 shall be as follows:
4

5 (i) The PDC at the time of notice, provided in
6 Section 6.3.1, shall remain the PDC for three (3) months from the
7 date of such notice.
8

9 (ii) Section 6.3.1 and Section 6.3.2 shall
10 establish the PDC for the period after the first three (3) month
11 period or until such time that redetermination of PDC pursuant to
12 Section 6.3.5 is completed.
13

14 (iii) At such time that PDC is redetermined
15 pursuant to Section 6.3.5 the PDC shall become the PDC determined
16 pursuant to Section 6.3.5.
17

18 6.3.7 In the event that the Hetch Hetchy
19 Generating Capacity or City's Transmission Facilities which
20 caused an adjustment of PDC pursuant to Section 6.3.5 are
21 restored, the level of PDC will be automatically readjusted to a
22 level of PDC consistent with the extent of such restoration.
23

24 6.3.8 If Modesto contests the automatically
25 adjusted PDC, as adjusted pursuant to this Section 6.3, Modesto
26 shall have the right to submit such adjustment to PDC to
27 arbitration pursuant to Section 6.5.
28

1 6.4 Concurrent PDC Redetermination and Adjustment

2
3 The initiation of PDC redetermination or
4 adjustment under this Agreement and the City agreements with PG&E
5 and Turlock will occur concurrently. City shall initiate a
6 redetermination or adjustment of PDC which is consistent with the
7 provisions of Section 6.2 or Section 6.3 of this Agreement at
8 such time that a redetermination or adjustment of PDC is
9 initiated under the City's agreements with PG&E or Turlock.

10
11 6.5 Arbitration Regarding PDC

12
13 Either Party may request binding arbitration of
14 the redetermined or automatically adjusted level of PDC resulting
15 from the procedures provided under Section 6.2 or Section 6.3,
16 respectively. Within five days after either Party requests such
17 arbitration, City shall cause such arbitration to be initiated
18 under Section 6.4 of the City-PG&E Agreement.

19
20 7. SALE AND PURCHASE OF POWER

21
22 Sales and purchases shall be made under the terms and
23 conditions and at the rates and charges provided by this
24 Agreement.

25
26 City shall sell and deliver at the Points of Delivery
27 as scheduled by Modesto pursuant to Appendix B and Modesto shall
28 purchase, at the Points of Delivery, Modesto's Allocated

1 Entitlement of Districts' Annual Firm Capacity and Districts'
2 Annual Firm Energy, and such portions of Optional Monthly Firm
3 Capacity, Additional Firm Capacity and Districts' Excess Energy
4 as Modesto commits to purchase.
5

6 The quantities of Power and services which Modesto
7 commits to purchase and the City commits to deliver pursuant to
8 this Agreement may be affected by changes to the PDC which occur
9 subsequent to the establishment of the commitments by the
10 Parties. Any changes in such commitments of the Parties shall
11 become effective on the effective date of any change in PDC.
12 Modesto's payment obligations related to such changes shall be
13 determined in accordance with Section 15.
14

15 7.1 Modesto's Allocated Entitlement
16

17 7.1.1 At the effective date of this Agreement
18 Modesto's Allocated Entitlement is sixty-six and eighty-two
19 hundredths (66.82) percent and Turlock's Allocated Entitlement is
20 thirty-three and eighteen hundredths (33.18) percent. Modesto
21 may change such allocated entitlement percentage at any time by
22 providing written notice to City, jointly signed by the Chief
23 Executive Officer of Modesto and the General Manager of Turlock,
24 stating their respective allocated entitlement percentages, the
25 sum of which must equal one hundred (100) percent, and the date
26 the revised allocated entitlement percentages are to be
27 effective. City shall use the allocated entitlement percentages
28 in this Agreement until so changed, and thereafter shall use the

1 allocated entitlement percentages in the most recent notice for
2 any allocation it makes pursuant to this Agreement.
3

4 7.1.2 If Modesto and Turlock change their
5 respective allocated entitlements pursuant to Section 7.1.1, such
6 changes shall become effective at the beginning of the month
7 following delivery of the written notice described in Section
8 7.1.1 and, commitments previously established between the Parties
9 shall be modified to be consistent with such changes; provided,
10 the collective commitment of the Districts shall be maintained.
11

12 7.1.3 City is not a party to the Allocation
13 Agreement. City had no involvement in the negotiation of the
14 Allocation Agreement and is not in any way an arbitrator or
15 enforcer of the Allocation Agreement. If any schedule submitted
16 by Modesto pursuant to Appendix B exceeds Modesto's Allocated
17 Entitlements for services under this Agreement under Section
18 7.1.1 or Section 7.1.2, City shall promptly notify Modesto. If
19 Modesto has not adjusted its schedule by the date and time
20 required for completion of City's applicable schedule pursuant to
21 Appendix B, City shall adjust Modesto's schedule to equal
22 Modesto's Allocated Entitlement and so notify Modesto.
23

24 7.1.4 Modesto shall resolve with Turlock all
25 issues related to Modesto's Allocated Entitlements.
26
27
28

1 7.2 Hetch Hetchy Firm Capacity
2

3 7.2.1 The priorities for utilization of Hetch
4 Hetchy Firm Capacity shall be:
5

6 FIRST: City Municipal Demand.
7

8 SECOND: Districts' Firm Capacity.
9

10 7.2.2 Modesto shall notify City of the amount of
11 Modesto's Annual Firm Capacity pursuant to Section 10.3. If
12 Modesto's Annual Firm Capacity for any Year, as provided pursuant
13 to Section 10.3, does not equal the amount of Modesto's Annual
14 Firm Capacity for that Year determined by using Modesto's
15 Allocated Entitlements under Section 7.1.1, City shall promptly
16 notify Modesto. If Modesto has not adjusted its notice of
17 Modesto's Annual Firm Capacity within thirty (30) days of City's
18 notification, City shall adjust Modesto's Annual Firm Capacity to
19 equal Modesto's Annual Firm Capacity as determined pursuant to
20 Section 7.1.1 and so notify Modesto.
21

22 7.2.3 City shall offer to Modesto Optional
23 Monthly Firm Capacity for any month at the time that forecasts
24 are provided pursuant to Sections 10.1 or 10.2. If Modesto
25 notifies City, in writing, of the amount of Optional Monthly Firm
26 Capacity Modesto desires to purchase in each month, within
27 Modesto's Allocated Entitlement, Modesto shall purchase such
28 amount of Optional Monthly Firm Capacity and City shall deliver

1 such Optional Monthly Firm Capacity to the extent scheduled by
2 Modesto. Modesto also may purchase Modesto's Allocated
3 Entitlement of Optional Monthly Firm Capacity which Modesto has
4 not previously committed to purchase, up to amounts City then
5 determines to be available based on City's monthly/weekly
6 preschedules. Modesto's commitment to purchase an amount of such
7 capacity, and City's obligation to deliver that amount for such
8 month shall be irrevocable.
9

10 7.2.4 Modesto may purchase Modesto's Allocated
11 Entitlement of Additional Firm Capacity. Modesto's request to
12 purchase all or any part of such capacity shall be made at the
13 time Modesto confirms its schedule pursuant to Section 4 or
14 Section 5 of Appendix B. Modesto's commitment to purchase an
15 amount of such capacity for any half-hour of any day, and City's
16 obligation to deliver that amount, shall be irrevocable.
17

18 7.2.5 Modesto's Firm Capacity shall be available
19 to Modesto at any time and, in order to achieve that degree of
20 availability, City shall provide adequate capacity reserves,
21 spinning reserves, prime-mover energy and transmission to deliver
22 Modesto's Power to designated Points of Delivery.
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7.3.1 Modesto's Annual Firm Energy shall be calculated as follows:

$$\text{Modesto's Annual Firm Energy} = .65 \times \text{hours/year} \times \text{Modesto's Annual Firm Capacity}$$

7.3.2 If PDC is adjusted or redetermined pursuant to Section 6, Modesto's Annual Firm Energy shall be calculated to reflect the number of hours during the year that each PDC value is effective.

7.3.3 City shall make available at the Points of Delivery Modesto's Annual Firm Energy, and City shall provide reserves and services to support Modesto's Annual Firm Energy.

7.3.4 All of Modesto's Firm Energy for each month determined pursuant to Section 2.1 of Appendix B, as may be adjusted pursuant to Section 7.3.6 or Appendix B, shall be deemed to have been delivered during such month.

7.3.5 If there is a change in the availability of Hetch Hetchy Excess Energy, City's obligation to deliver Modesto's Firm Energy for the remainder of a month shall be determined by subtracting from Modesto's Firm Energy for that month, determined pursuant to Appendix B, the amount of Modesto's Firm Energy deemed to have been delivered during that month to

1 Modesto prior to the time of the determination. The amount
2 deemed to have been delivered through any period of the month
3 shall be calculated by using the following formulas:
4

5 (i) At the end of any period throughout the
6 month:

7
8
$$\text{MFED} = \text{MFE} \times (\text{HE}/\text{HM}), \text{ or}$$

9

10 (ii) In the event that MFED is calculated to be
11 greater than MED, then:

12
13 MFED becomes equal to MED
14

15 where:

16
17 MFED = Modesto's Firm Energy deemed to have been
18 delivered up to the point of determination.

19
20 MED = Actual Modesto Energy scheduled up to the point
21 of determination.
22

23 MFE = Modesto's Firm Energy for the month, determined
24 pursuant to Appendix B.
25

26 HE = The number of hours elapsed through the month to
27 the point of determination.
28

1 HM = The number of hours in the month.
2

3 7.3.6 At any time, in unusual or unforeseen
4 circumstances, either Party may request the other Party to defer
5 or increase delivery of a part of Modesto's Firm Energy.
6 Agreement of the other Party shall not be unreasonably withheld,
7 provided that such deferral or increase will not cause additional
8 costs to the other Party.
9

10 7.4 Hetch Hetchy Excess Energy
11

12 7.4.1 Hetch Hetchy Excess Energy shall be
13 determined by City based on City's forecast of operating and
14 water conditions. Hetch Hetchy Excess Energy shall be offered
15 as, if and when available, pursuant to Appendix B.
16

17 7.4.2 City may schedule up to one-half of Hetch
18 Hetchy Excess Energy to serve Airport Tenants' energy
19 requirements. Airport Tenants' energy requirements include
20 transmission losses to the Hetch Hetchy Bus. Districts shall
21 have a right to all remaining Hetch Hetchy Excess Energy.
22 Modesto may exercise its right to purchase Modesto's Allocated
23 Entitlement to Districts' Excess Energy pursuant to Appendix B.
24 If that right is not exercised, City shall have the right to
25 schedule all such energy for City customers.
26
27
28

1 8. HETCH HETCHY EXCESS CAPACITY

2
3 8.1 Priorities for Hetch Hetchy Excess Capacity

4
5 City shall provide and Modesto may use Modesto's
6 Excess Capacity. The priorities for Hetch Hetchy Excess Capacity
7 shall be as follows:
8

9 FIRST: City for the purpose of serving
10 energy requirements of both the Airport
11 Tenants and Districts. City may
12 schedule up to one-half of Hetch Hetchy
13 Excess Capacity to serve the Airport
14 Tenants.
15

16 SECOND: City for the purpose of serving
17 energy requirements of Norris
18 Industries, Assigned Industrial
19 Customers and other City customers.
20

21 THIRD: City and Districts for Spinning
22 Reserve pursuant to Section 8.3.
23

24 8.2 Interruption of City's Use of Hetch Hetchy Excess
25 Capacity

26
27 8.2.1 Modesto may interrupt City's use of
28 Hetch Hetchy Excess Capacity to schedule Modesto's Energy.

1 Notice of such interruption shall be given pursuant to
2 Appendix B.
3

4 8.2.2 Modesto's right to interrupt shall be
5 limited to Modesto's Allocated Entitlement of Hetch Hetchy Excess
6 Capacity being used for City's schedules of Hetch Hetchy Excess
7 Energy for Airport Tenants, Norris Industries, Assigned
8 Industrial Customers, or other City customers.
9

10 8.2.3 If Modesto interrupts City's schedules
11 of Hetch Hetchy Excess Energy for Airport Tenants, Modesto shall
12 pay City any additional net costs incurred by City to serve
13 Airport Tenants as a result of such interruption during the
14 calendar month of the interruption. Modesto shall not be
15 required to reimburse City as a result of the interruption of
16 City's schedule for service to Norris Industries, Assigned
17 Industrial Customers or other City customers.
18

19 8.3 Spinning Reserve
20

21 That portion of Hetch Hetchy Excess Capacity that
22 has not been used for schedules of Hetch Hetchy energy during any
23 determination period may be scheduled for Spinning Reserve.
24

25 8.3.1 The priorities for scheduling Spinning
26 Reserve shall be:
27
28

1 FIRST: City's Spinning Reserve obligation for
2 schedules of City Municipal Load and
3 Districts' Energy within Districts' Firm
4 Capacity pursuant to the City-PG&E
5 Agreement.

6
7 SECOND: Districts' Spinning Reserve.

8
9 City shall use best efforts to prevent any
10 increase in the current seven (7) percent Spinning Reserve
11 obligation applicable to Hetch Hetchy Firm Capacity being used at
12 any given time for schedules for City Municipal Load and
13 Districts' Energy within Districts' Firm Capacity. Prior to any
14 increase of the City's Spinning Reserve obligation pursuant to
15 the City-PG&E Agreement, City will provide to Modesto all data
16 which supports such increase.

17
18 8.3.2 Modesto may schedule, pursuant to
19 Appendix B, Modesto's Allocated Entitlement of District's
20 Spinning Reserve.

21
22 8.3.3 In the event of a contingency requiring
23 generation of Hetch Hetchy energy using Modesto's Spinning
24 Reserve, such energy shall be deemed to be a portion of Modesto's
25 Energy during the month of the generation of such energy.
26 Alternatively, the Parties may agree that such energy shall be
27 returned by Modesto at mutually agreed times and under similar
28 load conditions, unless otherwise agreed.

1 8.3.4 City shall return to the Project an
2 amount of energy equal to the energy generated by the loading of
3 its Spinning Reserve if, and to the extent that, the energy
4 generated is energy to which Districts otherwise would have been
5 entitled, at mutually agreed times and under similar load
6 conditions, unless otherwise agreed.
7

8 9. MODESTO'S RIGHTS TO USE CITY'S TRANSMISSION FACILITIES
9

10 9.1 Modesto shall have a right to use Modesto's
11 Allocated Entitlement of excess capacity of City's Transmission
12 Facilities. This right is limited to the uses which do not
13 adversely affect delivery of energy to satisfy City's obligations
14 to City Municipal Load, Districts, Airport Tenants, Norris
15 Industries, and delivery of Hetch Hetchy Project energy to the
16 Assigned Industrial Customers and other City customers.
17

18 9.2 City shall be the sole judge of the availability
19 of excess capacity in City Transmission Facilities, consistent
20 with Prudent Utility Practice; provided, Modesto's use of such
21 excess capacity in City's Transmission Facilities shall not be
22 unreasonably denied.
23

24 9.3 Modesto shall provide City with advance written
25 notice requesting use of such excess capacity in City's
26 Transmission Facilities. City shall deliver any Power scheduled
27 by Modesto utilizing such excess capacity and such deliveries
28

1 shall be reduced for transmission losses to the Points of
2 Delivery pursuant to Section 13.2.
3

4 9.4 If City plans to upgrade, rebuild, or add to
5 City's Transmission Facilities, City shall consult with Modesto
6 about its possible participation in such project. All terms and
7 conditions of use and costs associated with Modesto's
8 participation shall be negotiated by the Parties in a separate
9 agreement.
10

11 9.5 City shall allow Modesto to establish additional
12 interconnections with City's Transmission Facilities as the
13 Parties may agree. Such agreement will not be unreasonably
14 withheld. City shall not be required to bear any cost associated
15 with such additional interconnections.
16

17 9.6 If City believes that adverse impacts may result
18 to transmission systems of third parties from Modesto's
19 interconnection with and/or additional use of excess capacity in
20 City's Transmission Facilities, Modesto shall make all required
21 arrangements with such third parties, consistent with Prudent
22 Utility Practice, and bear all costs associated with such
23 interconnection or use.
24

25 9.7 City shall allow Modesto to construct new
26 transmission lines on the existing right of way for City's
27 transmission system; provided, that City agrees that such use by
28 Modesto is not inconsistent with (i) City's rights and present or

1 future use of such right of way and (ii) applicable federal and
2 state laws, including, specifically, the Raker Act. All terms
3 and conditions of use and costs associated with Modesto's use of
4 such right of way shall be negotiated by the Parties in a
5 separate agreement.
6

7 10. FORECASTING
8

9 10.1 Initial Forecast and Notice
10

11 Appendix A contains the form of the Initial
12 Forecast and Notice applicable to each Year of the first five (5)
13 years of the term of this Agreement. Subject to the provisions
14 of Section 7, the Initial Forecast and Notice shall establish the
15 binding commitments of the Parties for each Year of the Forecast
16 Period. City shall provide its Initial Forecast and Notice to
17 Modesto on or before January 15, 1988 and Modesto shall provide
18 its notice to City on or before sixty (60) days subsequent to the
19 date of receipt by Modesto of City's Initial Forecast and Notice.
20

21 10.2 Annual Forecasts
22

23 On or before September 1 of of each Year during
24 the term of this Agreement, City shall provide a forecast of
25 (i) City Annual Maximum Demand for the fifth (5th) Year
26 subsequent to the date of the forecast and (ii) the City's
27 Monthly Maximum Demand for each month of the Forecast Period.
28 Subject to the provisions of Section 7, City's Annual Forecast of

1 City Annual Maximum Demand for the fifth (5th) Year of such
2 forecast shall be binding and shall be used for determining
3 Modesto's Annual Firm Capacity and Modesto's Firm Energy for such
4 Year. City's Annual Forecast of City Monthly Maximum Demands for
5 the sixty (60) month period shall be binding to the extent of
6 Modesto's commitment to purchase Optional Monthly Firm Capacity
7 pursuant to Section 7.2.3.
8

9 10.3 Modesto's Annual Notice to City
10

11 On or before December 1 of each Year during the
12 term of this Agreement Modesto shall provide City with the
13 following:
14

15 (i) Notification of Modesto's Annual Firm
16 Capacity for the fifth (5th) succeeding Year.
17

18 (ii) Notice of commitment for the purchase of
19 Modesto's Allocated Entitlement of Optional Monthly Firm Capacity
20 for any month during the five (5) Years subsequent to the date of
21 Modesto's annual notice. Modesto's Optional Monthly Firm
22 Capacity for any month of the first four (4) Years of such annual
23 notice shall not be less than the amount of Optional Monthly Firm
24 Capacity Modesto previously committed to purchase unless
25 otherwise agreed to by the Parties. Each such commitment shall
26 be binding on Modesto pursuant to Section 7.2.3.
27
28

1 10.4 Long Range Planning Forecast

2
3 City and Modesto shall exchange non binding, long
4 range planning forecasts with their respective Initial Forecast
5 and Notice and subsequent annual forecasts and notices. For the
6 sixth (6th) through tenth (10th) Years (60 calendar months)
7 subsequent to the date of such forecasts City shall provide
8 Modesto a forecast of City Annual Maximum Demand for each Year of
9 the period and City Monthly Maximum Demand for each month of such
10 period. City shall also provide Modesto a forecast of City
11 Municipal Energy, and Airport Tenants' peak demand and energy
12 requirements for each month of the ten (10) Year period
13 subsequent to the date of such forecast. Modesto shall provide
14 City a forecast of Class 1 monthly peak demand and monthly energy
15 for a ten (10) year period (120 calendar months) subsequent to
16 the date of such forecasts.

17
18 City shall also provide Modesto information on any
19 known or planned changes in Hetch Hetchy Project generating and
20 transmission facilities or any planned occurrences or events that
21 might impact the capability of such facilities during the ten
22 (10) year Forecast Period.

23
24 10.5 Monthly Planning Estimates

25
26 Beginning with the Initial Forecast and Notice
27 City shall provide Modesto monthly planning estimates for the
28 following items under wet, dry and average year water conditions.

- (i) Hetch Hetchy energy generation
- (ii) Maximum Hetch Hetchy Generating Capacity
- (iii) Minimum Hetch Hetchy generation level, in
kilowatts

City shall provide Modesto with revised monthly planning estimates with subsequent Annual Forecasts to the extent that any changes are known. Such estimates shall not be binding.

10.6 Monthly Forecasts

By the tenth (10th) day of each month during the term of this Agreement, City shall provide Modesto with a planning forecast for each of the six (6) months subsequent to the date of such forecast. Such forecast shall be based on information then available to City and shall include the following items:

- (i) Hetch Hetchy energy generation
- (ii) Maximum Hetch Hetchy Generating Capacity
- (iii) Minimum Hetch Hetchy generation
- (iv) City Monthly Maximum Demand and City
Municipal Energy
- (v) Airport Tenants' peak demand and
energy requirements.

City shall also provide Modesto information on any known or planned changes in Project generating and transmission

1 facilities or any planned occurrences or events that might impact
2 the capability of such facilities. Such forecasts shall not be
3 binding.
4

5 11. SCHEDULING
6

7 11.1 Modesto shall schedule and City shall deliver
8 energy and Spinning Reserves provided hereunder at the Points of
9 Delivery in accordance with the provisions of Appendix B.
10 Modesto schedules at the Points of Delivery shall not exceed
11 Modesto's Allocated Entitlements.
12

13 11.2 City and Modesto shall each designate an
14 appropriate contact person to receive and be empowered to effect
15 requested changes in schedules. These contact persons or their
16 designees or successors will be available during all hours of the
17 day, each day of the year, to effect such changes.
18

19 11.3 Changes in the schedules will be confirmed by the
20 Parties prior to the changes. Agreement to changes may be given
21 and communicated orally, or by other means as agreed to by the
22 Parties, utilizing such equipment as, but not limited to,
23 telephones, telefaxes, and computers.
24

25 11.4 City and Modesto specifically agree that City
26 shall be deemed to have delivered energy at rates of delivery as
27 agreed upon in the final schedules pursuant to Section 4 and
28 Section 5 of Appendix B.

1 12. POINTS OF DELIVERY

2
3 Points of Delivery for Power provided under this
4 Agreement by City to Modesto shall be those points known as the
5 Standiford 115 kilovolt bus, the Westley 230 kilovolt tap, and
6 such other points as the Parties agree to establish. The Westley
7 230 kilovolt tap is the point at which the Tesla-Parker and
8 Walnut-Los Banos 230 kilovolt circuits of Districts are
9 interconnected with PG&E's Tesla-Los Banos 230 kilovolt circuits,
10 at or near Westley, California.

11
12 13. LOSSES

13
14 13.1 Losses associated with the determination of
15 Modesto's Class 1 Power between the Points of Delivery and points
16 of utilization shall be pursuant to Section 15.1.1.

17
18 13.2 Losses associated with Modesto's use of excess
19 capacity in City's Transmission Facilities shall be calculated on
20 an incremental basis.

21
22 14. CHARACTERISTICS OF ELECTRIC SERVICE AND METERING

23
24 14.1 Power to be delivered and received pursuant to
25 this Agreement shall be three phase, alternating current, at a
26 nominal frequency of sixty (60) hertz. Nominal voltage at the
27 Standiford Point of Delivery shall be 115 kilovolts, and at the
28 Westley Tap shall be 230 kilovolts.

1 14.2 Modesto and City shall each use best efforts to
2 provide reactive power and operate their respective systems so
3 that at all times the total delivery of Power by City to Modesto
4 as measured at the Points of Delivery shall be between ninety-
5 eight (98) percent lagging and ninety-eight (98) percent leading
6 power factor.
7

8 14.3 Metering equipment at the Points of Delivery shall
9 be furnished, serviced, tested and maintained by Modesto and
10 shall include "in" and "out" metering equipment for the
11 measurement of the amounts of both real and reactive power, and
12 such backup metering facilities as may be mutually agreed upon by
13 the Parties. Such metering equipment shall be designed to
14 prevent reverse registration and to measure and record
15 continuously deliveries of kilowatts and kilovars (integrated 30-
16 minute intervals), kilowatthours and kilovar-hours.
17

18 14.4 Modesto shall be responsible for making
19 arrangements to read all meters on the first Work Day of each
20 billing period or at such other times as agreed by the Parties
21 and to submit a copy of all readings to City for its records.
22 City shall be afforded reasonable opportunity to be present at
23 such times that meters are read. Modesto will service and
24 maintain charts or tapes on all recording meters, and will make
25 such charts or tapes available to City on request.
26

27 14.5 If City so agrees, Modesto shall have the right to
28 designate PG&E as its agent to read, test and maintain all

1 meters. In such event, PG&E shall assume and perform the duties
2 and obligations of Modesto in connection therewith.
3

4 14.6 Meters shall be sealed and the seals shall be
5 broken only upon occasions when meters are to be inspected,
6 tested or adjusted, and representatives of City shall be afforded
7 reasonable opportunity to be present upon such occasions. Meters
8 shall be tested at intervals of not less than once every twelve
9 months and at any reasonable time upon request therefor by either
10 Party. Any metering equipment found to be defective or
11 inaccurate shall be repaired and readjusted or replaced. If a
12 meter fails to register or if the measurement made by a meter
13 during a test varies by more than two (2) percent from the
14 measurement made by the standard meter used in the test, an
15 adjustment to correct all meter records of measurements made by
16 the inaccurate meter shall be made for (i) the period since the
17 last meter test, or (ii) the actual period during which
18 inaccurate measurements were made if Modesto determines this
19 period can be established; provided, that the period covered by
20 the correction shall not exceed six (6) months or one-half the
21 time since its previous test. If necessary the corrections may
22 be estimated from the best information available for the period
23 of defect or inaccuracy.
24

25 14.7 Modesto shall own all metering equipment at the
26 Points of Delivery, including the primary instrument transformers
27 with associated wiring.
28

1 14.8 The Parties shall each be responsible to provide
2 equipment at the Points of Delivery capable of telemetering the
3 metered data to their respective energy control centers if the
4 Party desires such data.
5

6 15. ACCOUNTING AND BILLING
7

8 The total quantities of Modesto's Firm Capacity,
9 Modesto's Firm Energy and Modesto's Excess Energy sold by City
10 and purchased by Modesto and the allocation of Modesto's Firm
11 Capacity and Modesto's Firm Energy between Class 1 Power and
12 Class 3 Power shall be determined pursuant to this Section 15.
13 City shall bill Modesto at rates and charges pursuant to
14 Section 16.
15

16 15.1 Class 1 Power
17

18 15.1.1 Each month Class 1 energy shall be
19 billed as the energy used during the preceding month for the
20 purposes which qualify for service under Class 1 Power, as
21 metered by Modesto in such month at the points of utilization
22 multiplied by a factor of 1.054, to account for losses between
23 the points of utilization and the Points of Delivery and rounded
24 to the nearest 1,000 kilowatthours provided, that if conditions
25 warrant and upon request of either Party, such factor may be
26 modified as agreed by the Parties.
27
28

1 Modesto shall notify City, in writing, of
2 the metered quantity of Class 1 energy each month on or before
3 the tenth (10th) Work Day of the succeeding month. Modesto's
4 notification shall include copies of work papers and other
5 supporting documentation utilized in calculation of such Class 1
6 energy.

7
8 15.1.2 The quantity of Class 1 demand billed
9 monthly to Modesto shall be determined by dividing Modesto's
10 Class 1 energy for the month as determined pursuant to
11 Section 15.1.1 by the product of the monthly system load factor
12 for Modesto's total system load for such month and the number of
13 hours in such month.

14
15 Modesto shall notify City, in writing,
16 of Modesto's monthly system load factor each month on or before
17 the tenth (10th) Work Day of the succeeding month. Modesto's
18 notification shall include copies of work papers and other
19 supporting documentation utilized in calculation of such value.

20
21 15.2 Class 3 Power

22
23 Class 3 Power billed to Modesto shall consist of
24 three billing quantities: (i) Class 3 firm energy, (ii) Class 3
25 excess energy, and (iii) Class 3 firm capacity.

26
27 15.2.1 Class 3 firm energy billed to Modesto
28 each month shall equal the difference between (a) Modesto's Firm

1 Energy as determined pursuant to Section 2.1 of Appendix B for
2 the month as may be adjusted pursuant to Section 7.3.6 or
3 Appendix B and (b) any Class 1 energy billed to Modesto pursuant
4 to Section 15.1.1.

5
6 15.2.2 The difference, if any, between
7 Modesto's Annual Firm Energy, as may be adjusted pursuant to
8 Appendix B, and the sum of the amounts of energy accounted for in
9 all months of any Year, pursuant to Section 15.1.1 and Section
10 15.2.1, shall be deemed to have been made available as Class 3
11 firm energy and shall be billed at rates pursuant to
12 Section 16.2.

13
14 15.2.3 Class 3 firm capacity billed to Modesto
15 shall equal Modesto's Annual Firm Capacity plus Modesto's
16 Optional Monthly Firm Capacity less any Class 1 demand billed
17 pursuant to Section 15.1.2.

18
19 15.2.4 In any month in which Modesto's Firm
20 Capacity is reduced due to an adjustment in PDC pursuant to
21 Section 6.3, unless Modesto elects to the contrary, Modesto shall
22 not be obligated to pay for the amount of such reduction, and the
23 quantity of Modesto's Firm Energy for the remainder of the month
24 shall be based on the amount of Hetch Hetchy Firm Capacity paid
25 for by Modesto in such month. Modesto's obligation to pay for
26 any increase in Modesto's Firm Capacity due to a restoration of
27 PDC pursuant to Section 6.3.3 or Section 6.3.7 will commence at
28 such time that such restoration of PDC has been achieved for an

1 entire monthly period and such restoration is not subject to
2 automatic reduction pursuant to Section 6.3.4.

3
4 15.2..5 Class 3 excess energy billed to Modesto
5 shall equal all Hetch Hetchy Excess Energy which Modesto is
6 obligated to purchase pursuant to Appendix B.

7
8 15.3 Additional Firm Capacity

9
10 Modesto shall be billed for Additional Firm
11 Capacity which is scheduled by Modesto in accordance with
12 Appendix B at the rate specified in Section 16.2.

13
14 15.4 Billing and Payment

15
16 15.4.1 City shall render monthly bills to
17 Modesto, pursuant to Appendix C, for Power sold and other
18 services supplied to Modesto under this Agreement. The bill for
19 any particular month shall be rendered on or before the fifteenth
20 (15th) day of the succeeding month or as soon thereafter as
21 possible. City shall submit with each bill all supporting
22 information and documentation that establishes the basis for the
23 charges included in such bill. If amounts of Power and other
24 services sold under this Agreement cannot be determined
25 accurately for preparing a bill, City shall use its best
26 estimates in preparing the bill, and when final and complete
27 billing information becomes available, City shall promptly
28 prepare and submit an adjusted bill to Modesto.

1 15.4.2 Modesto shall pay to City all undisputed
2 amounts within thirty (30) days after receipt of each bill.
3 Modesto shall have the option to either pay disputed amounts or
4 withhold payment of such disputed amounts, provided however,
5 Modesto shall at a minimum pay City such amounts required for
6 payment of Modesto's Firm Energy and Modesto's Firm Capacity for
7 that month. Modesto's payment for such quantities shall not
8 constitute Modesto's acceptance of such quantities as being
9 correct or appropriate. Billing disputes will be resolved in
10 accordance with Section 17. Bills or payments are deemed to be
11 received three (3) days after a Party deposits the same, postage
12 paid, in the United States Mail.

13
14 16. RATES

15
16 16.1 Class 1 Power Rates

17
18 Class 1 Power rates for the period January 1, 1988
19 through June 30, 1988 and for subsequent periods shall be
20 calculated in accordance with the procedures set forth in
21 Appendix D. On or before May 1, 1988 and May 1 of each year
22 thereafter during the term of this Agreement, City shall notify
23 Modesto, in writing, of Class 1 Demand and energy rates to be
24 effective for the twelve (12) month period beginning July 1 of
25 that year. City's notification shall include copies of work
26 papers and other supporting documentation utilized in calculation
27 of such rates.
28

1 16.2 Class 3 Power Rates

2
3 The Class 3 Power rates for the period through
4 June 30, 1988 shall be the rates in effect on December 31, 1987
5 pursuant to the Interim Agreement multiplied by 1.02. Class 3
6 Power rates for subsequent periods shall be calculated in
7 accordance with procedures set forth in Appendix E multiplied by
8 1.02. The kW-day Demand rate applicable to the maximum amount of
9 Modesto's Additional Firm Capacity scheduled during any one-half
10 hour period of a day shall be calculated as the quotient of the
11 current Class 3 Demand rate divided by 30.42 days per month. On
12 or before May 1, 1988 and May 1 of each year thereafter during
13 the term of this Agreement, City shall notify Modesto, in
14 writing, of Class 3 Demand and energy rates to be effective for
15 the twelve (12) month period beginning July 1 of that year.
16 City's notification to Modesto shall include copies of work
17 papers and other supporting documentation used in the calculation
18 of such rates.

19
20 16.3 Hetch Hetchy Excess Energy Rate

21
22 The rate for Hetch Hetchy Excess Energy shall be
23 the lower of the effective rate for Class 3 energy pursuant to
24 Section 16.2 or the rate available to the City under long-term
25 alternative non-firm energy sales agreements between City and
26 third parties. The initial alternative non-firm energy rate for
27 Hetch Hetchy Excess Energy shall be the Energy Cost Adjustment
28 Clause (ECAC) or fuel cost components of an applicable PG&E

1 retail power rate schedule, at the transmission level, that is on
2 file with the California Public Utilities Commission for the
3 Assigned Industrial Customers. For purposes of determining this
4 rate for the current month, the Parties agree to weigh each time
5 of use rate for the current month proportionately to Modesto's
6 Energy delivered during each time period during the previous
7 month.

8
9 16.4 Reserve Support Charge

10
11 The Districts shall pay City on a monthly basis to
12 reimburse City for a portion of City's capacity reserve costs,
13 provided that the maximum payment of the Districts during any
14 Year shall be \$700,000. The charge for any month shall be a unit
15 charge in dollars per kilowatt month equal to the total capacity
16 reserve costs paid by City for such month divided by PDC.
17 Modesto's payment to City shall be equal to Modesto's Class 1
18 capacity for each month multiplied by the above determined unit
19 charge. During any month when the total payments by the two
20 Districts for said reserve support charge would bring the total
21 for such Year to more than \$700,000, such reserve charge by the
22 Districts for said month shall be proportionately reduced such
23 that the \$700,000 annual payment is not exceeded and shall not be
24 levied for any subsequent month of such Year. Further, Class 1
25 rates determined pursuant to Appendix D shall not include any
26 reserve support costs. Neither the reserve support charge nor
27 the expenses it is intended to recover shall as a result of this
28

1 Agreement be deemed the type of costs contemplated by
2 Section 9(1) of the Raker Act.
3

4 17. BILLING DISPUTES
5

6 17.1 Any refund or amount due under this Agreement
7 which is not timely paid pursuant to Section 15.4 shall accrue
8 interest at an annual rate compounded monthly from the date
9 payment is due until the date payment is made. The interest rate
10 applicable to any refund or amount due during a given period
11 shall be the lesser of (i) four (4) percent plus the Chase
12 Manhattan Bank Floating Prime Rate, or its successor, which is in
13 effect during such period, or (ii) the maximum interest rate
14 permitted by law, such interest computed monthly for each month
15 or fractional period thereof. Interest which is accrued but
16 unpaid as of the first day of a calendar month shall be added to
17 the total amount due as of that day and thereafter bear interest
18 in the same manner as the principal due under the bills.
19

20 17.2 If Modesto disputes the amount due under any bill
21 rendered by City pursuant to Section 15.4 Modesto shall pay the
22 undisputed amount of such bill and shall have the option to
23 either pay the disputed amount or withhold payment of such
24 disputed amount pursuant to the provisions of Section 15.4.2, and
25 shall provide to City, in writing, notice of the amount in
26 dispute and the specific basis for the dispute. City and Modesto
27 shall meet, or otherwise discuss as mutually agreed, within
28 fifteen (15) days after City's receipt of Modesto's notice, or by

1 mutual agreement on the earliest possible date thereafter, to
2 attempt to agree on any adjustments that may be appropriate. If
3 the Parties do not agree within this fifteen (15) day period, as
4 it may be extended by mutual agreement, the Parties shall
5 resolve such disputes pursuant to Section 23 of this Agreement.
6 Upon resolution of the dispute, refunds due Modesto or payments
7 due City will be made with interest calculated from the date the
8 payment or refund was due to the date the refund or payment of
9 the disputed amount occurs at the interest rate specified in
10 Section 17.1.
11

12 17.3 If either Party is not notified of any error in a
13 bill within three (3) years from the payment due date of the
14 bill, such bill shall be deemed to be correct, without recourse
15 by either Party.
16

17 18. COVENANTS OF MODESTO
18

19 18.1 Modesto agrees that no power sold to it under this
20 Agreement shall be resold to any private person or corporation
21 for purposes contrary to the provisions of the Raker Act.
22 Modesto shall have the right and option to sell Power for resale
23 if Modesto's total monthly load exceeds its amount of Hetch
24 Hetchy Power taken in such month.
25

26 18.2 Modesto warrants that the monthly quantity of
27 Class 1 energy shall be determined in compliance with the
28 applicable provisions of the Raker Act both as to purposes of use

1 and location of consumer's point of utilization and, when
2 requested by City, Modesto shall demonstrate such compliance to
3 City.
4

5 18.3 Modesto warrants that it shall not request that
6 City schedule or deliver to Modesto any power in excess of
7 Modesto's Allocated Entitlement to such power.
8

9 18.4 Modesto warrants that City shall not be liable for
10 any disputes arising between Modesto and Turlock regarding the
11 Allocation Agreement.
12

13 18.5 Modesto agrees to grant to City such permits for
14 installation, operation and maintenance of structures and
15 equipment on Modesto's real property and such rights of access as
16 may be required for the purposes of this Agreement.
17

18 19. COVENANTS OF CITY
19

20 19.1 City agrees that this Agreement does not, nor is
21 it intended to lessen, affect or impair in any manner Modesto's
22 rights, benefits or privileges acquired or existing through or by
23 means of the Raker Act.
24

25 19.2 City agrees to grant to Modesto such permits for
26 installation, operation and maintenance of structures and
27 equipment on City's real property and such rights of access as
28 may be required for the purposes of this Agreement.

1 19.3 City agrees to maintain and operate City's
2 transmission and generation facilities consistent with Prudent
3 Utility Practice.
4

5 19.4 City shall use its best efforts to install,
6 operate and maintain such equipment as is necessary to provide to
7 Modesto a continuous exchange of information regarding the City's
8 generation and transmission facilities and loads.
9

10 19.5 City shall keep Modesto informed of any
11 discussions or negotiations between City and PG&E which would
12 adversely affect Districts' rights to Power and other services or
13 the cost of services under this Agreement and of any applications
14 submitted by PG&E before the Public Utilities Commission of the
15 State of California, the Federal Energy Regulatory Commission
16 (FERC), or such other regulatory agency as may be involved, which
17 may affect the terms and conditions of this Agreement, and shall
18 furnish Modesto with copies of any orders or notifications
19 pertaining thereto.
20

21 19.6 City shall provide Modesto copies of all rate
22 tariffs and agreements between City and third parties which may
23 affect the rates and terms and conditions of this Agreement.
24

25 20. RESPONSIBILITY
26

27 Each Party shall at its own risk and expense, in
28 accordance with Prudent Utility Practice, maintain and keep in

1 good and safe condition and carefully operate its own property
2 and facilities used in delivering, metering or receiving Power
3 hereunder.
4

5 21. UNCONTROLLABLE FORCES
6

7 21.1 Neither Party shall be considered to be in default
8 in the performance of any of its obligations under this Agreement
9 when a failure of performance shall be due to Uncontrollable
10 Forces. The term Uncontrollable Forces shall mean any cause
11 beyond the control of the Party affected, including but not
12 restricted to failure or threat of failure of facilities, flood,
13 earthquake, tornado, storm, fire, lightning, epidemic, war, riot,
14 civil disturbance or disobedience, labor dispute, labor or
15 material shortage, sabotage, restraint by court order or order of
16 a governmental agency or authority, and action or non-action by,
17 or inability to obtain the necessary authorizations or approvals
18 from, any governmental agency or authority other than the Parties
19 or their Governing Boards, which by exercise of due diligence
20 such Party could not reasonably have been expected to avoid and
21 which by exercise of due diligence it has been unable to
22 overcome.
23

24 21.2 Nothing contained herein shall be construed so as
25 to require a Party (i) to settle any strike or labor dispute in
26 which it may be involved or (ii) to agree to any terms or
27 conditions of financing or obtaining authorizations or approvals
28 which that Party deems unreasonable or burdensome.

1 21.3 Uncontrollable Forces which would excuse the
2 Parties from fulfilling their obligations hereunder shall not
3 include:
4

5 (i) Inadequacy of water for generation of
6 electric energy caused by a drought;
7

8 (ii) Failure of City's facilities for storage of
9 water, generation or transmission of Power, except for cases
10 whereby a portion of City's facilities are damaged or destroyed,
11 or shut down in accordance with Prudent Utility Practice to
12 prevent imminent and substantial damage or destruction; provided
13 that such obligations may be excused in part only to the extent
14 it results in a reduction of PDC pursuant to Section 6; and
15

16 (iii) Failure of PG&E facilities, except that if
17 Hetch Hetchy facilities are unable to meet the requirements to
18 deliver Power to the Districts and Power is being provided by
19 PG&E; the Parties may have such deliveries as are provided by
20 PG&E reduced during emergencies on PG&E's system to the extent
21 required by such conditions. City's obligation to provide Power
22 is limited to that which it can produce plus that which PG&E is
23 able to supply. In the event of a failure of PG&E facilities
24 contemplated above, the Parties agree that all generation from
25 the Project shall first be applied to meet the City Municipal
26 Load and Class 1 Power rights of the Districts under the
27 provisions of the Raker Act. Any additional Power from the
28 Project and any PG&E Power provided to City pursuant to the City-

1 PG&E Agreement shall be allocated to the Districts in an amount
2 equal to the lesser of (a) the ratio resulting by dividing the
3 District's Firm Capacity by the PDC, times the total amount of
4 Power available from Project generation and Power provided by
5 PG&E, or (b) the total amount of Project generation plus Power
6 provided by PG&E less the amount of Project generation that is
7 applied to meeting the City Municipal Load and Class 1 Power
8 rights of the Districts. All amounts of Power provided by City
9 to the Districts under this provision shall be allocated between
10 the Districts in the proportion that each District's respective
11 share of Districts' Firm Capacity bears to the total amount of
12 Districts' Firm Capacity. In the event state or superseding
13 federal governmental authorities control such allocation then the
14 allocation shall be consistent with such state or federally
15 established priorities.

16
17 21.4 If either Party is unable to fulfill any of its
18 obligations under this Agreement by reason of Uncontrollable
19 Forces, such Party shall give written notice as expeditiously as
20 possible of such fact to the other Party and shall exercise due
21 diligence to remove such inability with all reasonable
22 dispatch. In such event, the Parties shall diligently and
23 expeditiously determine how they may equitably proceed to carry
24 out the objectives of this Agreement.

1 22. INSURANCE AND LIABILITY

2
3 22.1 During the term of this Agreement, each Party
4 shall submit certification of self insurance or evidence of
5 coverage obtained from commercial carriers, in a form acceptable
6 to the other Party, describing the levels of coverage for
7 Workers' Compensation, comprehensive general liability insurance,
8 comprehensive automobile liability insurance and aircraft
9 liability insurance. Such certification or evidence of coverage
10 shall be supplied annually.

11
12 22.2 Responsibilities of the Parties

13
14 22.2.1 Each Party shall take full
15 responsibility for performance of its obligations under this
16 Agreement and shall bear all losses and damages directly
17 resulting from such performance. Each Party shall indemnify,
18 hold harmless and assume the defense of the other Party, its
19 governing board, the members of its governing board and its
20 officers, agents and employees from all claims, loss, damage,
21 injury, and liability of any and every kind resulting from
22 injuries to or death of persons, including employees of either
23 Party, arising out of or resulting from performance or
24 nonperformance of this Agreement or any action undertaken in
25 furtherance of this Agreement by the indemnifying Party or its
26 agents, employees or contractors, except to the extent that any
27 such claim, loss, damage, injury or liability is proximately
28 caused by the willful misconduct of the indemnified Party, its

1 governing board, the members of its governing board and its
2 officers, agents, employees or contractors.

3
4 22.2.2 The indemnification provided above shall
5 not apply in any instances of sole willful misconduct of a Party,
6 its Governing Board and its members, officers, representatives,
7 agents or employees.

8
9 22.2.3 A Party's obligations under this Section
10 to indemnify and hold harmless the other Party shall not be
11 limited to the amount of insurance proceeds, if any, received by
12 the Party being indemnified.

13
14 22.2.4 Each Party shall be responsible for
15 protecting its facilities from possible damage by reason of
16 electrical disturbances or faults caused by the operation, faulty
17 operation, or nonoperation of the other Party's facilities, and
18 such other Party shall not be liable for any such damages so
19 caused.

20
21 23. RESOLUTION OF DISPUTES AND ARBITRATION

22
23 23.1 It is the intent of the Parties that best efforts
24 will be used to settle all disputes arising under this Agreement
25 as a matter of normal business. Failing such resolution the
26 procedures set forth under this Section 23 shall be utilized,
27 subject to the provisions of Section 17, if appropriate.

1 23.2 The Party initiating a dispute shall submit its
2 written notice to the other stating completely the nature of the
3 dispute and the specific grounds therefore.
4

5 23.2.1 Upon receipt of the written notice of
6 dispute specified in Section 23.2, the Parties shall meet within
7 15 days to attempt, in good faith, to resolve such dispute.
8

9 23.2.2 If the Parties are unable, within five
10 days of the initial meeting, to resolve such dispute, each Party
11 shall prepare a written statement setting forth its understanding
12 of the nature of the dispute and the reasons for the position
13 taken. Copies of the written statements shall be submitted to a
14 management team consisting of the General Manager of City's
15 Public Utilities Commission and Modesto's Chief Executive Officer
16 within 15 days of the initial meeting.
17

18 23.2.3 If the disputing Party fails to deliver
19 its written statement within the time specified in
20 Section 23.2.2, such Party shall be deemed to have waived all
21 present and future claims with respect of such dispute.
22

23 23.3 The management team and their advisors shall meet
24 within five days of receipt of each Party's written statement to
25 attempt to resolve the dispute.
26

27 23.3.1 The management team shall use best
28 efforts to attempt to resolve the dispute to the satisfaction of

1 the Parties within 30 days of receipt of the written
2 statements. The Parties may agree to extend the time periods set
3 forth in Section 23.3 and 23.3.1.
4

5 23.3.2 If the management team fails to resolve
6 any dispute within the period provided in Section 23.3.1, either
7 Party may commence arbitration under Section 23.4.
8

9 23.3.3 If the disputing Party fails to commence
10 arbitration within fifteen days after the end of the 30-day
11 period stated in Section 23.3.1, the disputing Party shall be
12 deemed to have waived all present and future claims with respect
13 to such dispute.
14

15 23.4 The Parties agree that all disputes arising under
16 this Agreement that have not been resolved after conclusion of
17 the procedures set forth in Sections 23.2 and 23.3 shall be
18 settled through binding arbitration as provided in this Section
19 23.4 providing such arbitration is commenced in accordance with
20 Section 23.3.2.
21

22 23.4.1 Except as otherwise provided in this
23 Section 23.4, the arbitration shall be governed by the Commercial
24 Arbitration Rules of the American Arbitration Association (AAA)
25 from time to time in force. Notwithstanding such rules
26 (1) discovery shall be permitted and the provisions of California
27 Code of Civil Procedures Section 1283.05, are incorporated by
28 reference herein except that the Parties shall not use

1 interrogatories as a means of discovery and (2) if such rules and
2 provisions as herein modified shall conflict with the laws of the
3 State of California then in force, that law shall govern.
4

5 23.4.2 Either Party may commence arbitration by
6 serving written notice on its intent to commence arbitration upon
7 the other Party within 15 days after the end of the 30-day period
8 provided in Section 23.3.1. Such Party shall be termed the
9 "Initiating Party." Should either Party fail to commence
10 arbitration within this time period, the Parties shall be deemed
11 to have waived all present and future claims with respect to such
12 dispute.
13

14 23.4.3 The written notice shall express the
15 Party's intent to institute arbitration under this Agreement and
16 shall in adequate detail set forth the nature of the dispute, the
17 issue to be arbitrated, the Party's position thereon and the
18 remedy sought by such arbitration.
19

20 23.4.4 Within 21 days of the receipt of the
21 notice commencing arbitration and statement of the dispute and
22 proposed remedy required under Section 23.4.3, the other Party
23 shall serve a written response upon the Initiating Party stating
24 its understanding of the issues in dispute, its position thereon,
25 the reasons supporting its position and its proposed remedy. The
26 statements required under Section 23.4.3 and 23.4.4 shall
27 constitute the submittal statement.
28

1 23.4.5 Within 30 days after delivery of the
2 Initiating Party's written notice to commence arbitration, the
3 Parties shall meet for the purpose of selecting three impartial
4 arbitrators. In the event the Parties are unable to agree on the
5 selection of three arbitrators at such meeting, they shall,
6 within 15 calendar days of such meeting, request the American
7 Arbitration Association (or a similar organization if the
8 American Arbitration Association should not at that time exist)
9 to provide a list of five impartial arbitrators from which to
10 select the necessary remaining arbitrators. Within 30 days after
11 the date of receipt of such list, the Parties shall take turns
12 striking names from said list until three arbitrators have been
13 selected. The arbitrators selected shall be available to serve
14 and shall be skilled and experienced in the field of the dispute
15 and no person shall be eligible for appointment as an arbitrator
16 who is a director, officer or employee of either of the Parties
17 or is otherwise interested in the matter to be arbitrated.
18 Within ten days after such selection, the Parties shall submit to
19 the arbitrators the written notice and submittal statements
20 prepared pursuant to Sections 23.4.3 and 23.4.4.

21
22 23.4.6 Within 10 calendar days after the
23 selection of the arbitrators, the Parties shall meet with the
24 arbitrators to establish a schedule for discovery, initial
25 hearing, the time for the arbitrators to issue a decision after
26 the close of hearing and the rules for consideration and
27 presentation of the arbitrators' decision.
28

1 23.4.7 The Parties may settle at any time
2 before the issuance of the arbitrator's decision.
3

4 23.4.8 The decision of the arbitrators shall
5 accept one Party's proposal and shall include findings with
6 respect to the issues involved in the dispute. The arbitrators'
7 shall make their decision in accordance with Prudent Utility
8 Practice and applicable standards of law. An agreement of any
9 two of the arbitrators to accept a Party's position shall
10 constitute the decision of the arbitrators. The arbitrators may
11 not grant any remedy or relief which is inconsistent with this
12 Agreement. The arbitrators shall specify the time within which
13 the Parties shall comply with the decision. In no event shall
14 the arbitrators' decision contain findings on issues not
15 contained in or grant a remedy beyond that sought in the
16 submittal statement.
17

18 23.4.9 The decision of the arbitrators may be
19 enforced by any court or agency having jurisdiction over the
20 Party against whom the decision is rendered.
21

22 23.4.10 Should a Party fail to respond to the
23 schedule established under Section 23.4.4 in a timely manner,
24 that Party shall be deemed to have waived all present and future
25 claims with respect to such dispute. Such schedule may be
26 modified by agreement of the Parties.
27
28

1 23.4.11 The arbitrators shall have no authority,
2 power or jurisdiction to alter, amend, change, modify, add to, or
3 subtract from any of the provisions of this Agreement, nor to
4 consider any issues arising other than from the language in and
5 authority derived from this Agreement.
6

7 23.4.12 The Parties agree that the decision of
8 the arbitrators shall be binding upon both Parties and that the
9 Parties shall take whatever action is required to comply with the
10 accepted proposal.
11

12 23.4.13 Any and all expenses, excluding
13 attorney's fees, associated with the arbitration shall be borne
14 by the nonprevailing Party except that if a resolution of the
15 dispute is reached before the arbitrators issue an award, such
16 expenses shall be borne by the Party which commenced the
17 arbitration. Each Party shall bear its own attorney's fees.
18

19 23.4.14 Should any Party fail to abide by the
20 decision of the arbitrators, the other Party may immediately seek
21 relief in law or equity as may be appropriate. In such event,
22 the prevailing Party shall be entitled to any damages, if any,
23 caused by the non-prevailing Party's failure to abide by the
24 arbitrators' decision, and expenses caused by the enforcement of
25 the arbitrators' decision, including, but not limited to,
26 attorney's fees.
27
28

1 24. TERMINATION FOR BREACH

2
3 This Agreement shall terminate as of July 1, 2015,
4 unless it is terminated earlier by the agreement of the Parties
5 or by either Party pursuant to this Section 24 or Section 25.
6 Termination shall be a remedy of last resort for material breach
7 of this Agreement, to be exercised only after the Parties have
8 exhausted all other remedies provided for in this Agreement.
9 After termination pursuant to Sections 24 or 25, all rights
10 provided under this Agreement, except for Modesto's right to
11 Class 1 Power pursuant to the Raker Act, shall terminate, and
12 neither Party shall claim or assert any continuing right to
13 receive performance of the other Party's obligation under this
14 Agreement. Notwithstanding the foregoing, any such termination
15 of this Agreement shall not release either Party from any
16 liability under this Agreement, whether of indemnity or
17 otherwise, which had accrued or which arises out of any claim ,
18 other than for Power or services provided under this Agreement,
19 that had accrued at the time of termination. Any right to the
20 payment of money for transactions occurring prior to the
21 termination shall continue, and the provisions of Section 17
22 shall continue to apply to such right to the payments of money.

23
24 25. PROTECTION CLAUSE

25
26 25.1 Neither Party to this Agreement shall initiate,
27 cause, support or engage in any attempts to frustrate the terms
28 and conditions or purposes of this Agreement or the Raker Act to

1 the extent the attempt would affect the terms and conditions of
2 this Agreement or the Raker Act.
3

4 25.2 The Parties shall jointly defend this Agreement
5 and the Raker Act against any acts, attempts, orders or decisions
6 - judicial, legislative, regulatory or administrative - that
7 would adversely affect the basic terms and conditions of this
8 Agreement.
9

10 25.3 If any subsequent judicial, regulatory,
11 legislative or administrative act, decision or order precludes
12 either Party from substantially realizing the benefits of this
13 Agreement, the Parties shall use their best efforts to amend this
14 Agreement to the end that the mutual benefits of this Agreement
15 will be realized by both Parties throughout the term of this
16 Agreement. If, after diligent and good faith effort by both
17 Parties, this Agreement cannot be so amended to prevent the
18 substantial deprivation of the benefits of this Agreement to
19 either Party, then at any time after one (1) year after the
20 occurrence of the action which causes such substantial
21 deprivation, provided such action is still in effect at that
22 time, either Party shall have the right to terminate this
23 Agreement upon advance written two and one-half (2-1/2) years
24 notice.
25

26 25.4 In the event of a dispute as to how best to amend
27 this Agreement pursuant to Section 25.3, either Party may, at any
28 time, refer the matter to the management team for resolution

1 pursuant to the terms of Section 23.2 and 23.3. If the
2 management team fails to reach agreement the matter shall be
3 referred to arbitration pursuant to Section 23.4, provided,
4 however, (a) that such arbitration shall be nonbinding, (b) the
5 arbitrators shall have the authority to issue a decision reached
6 in accordance with the standards of Section 23.4.8 but not
7 necessarily based entirely on either Party's proposal and
8 (c) Sections 23.4.9 through 23.4.14 shall not apply. If the
9 decision of the arbitrators is not acceptable to both Parties and
10 they do not otherwise agree how to amend this Agreement, either
11 Party may seek relief in a court of competent jurisdiction.

12
13 26. SEVERABILITY
14

15 Except as provided pursuant to Section 25, in the event
16 that any of the terms, covenants or conditions of this Agreement
17 or the application of any such term, covenant or condition shall
18 be held invalid as to any person or circumstance by any court
19 having, or by the Secretary of the Department of Interior to the
20 extent that the Secretary has jurisdiction in these matters, all
21 other terms, covenants or conditions of this Agreement and their
22 application shall not be affected thereby, but shall remain in
23 force and effect unless a court holds that the provisions are not
24 separable from all other provisions of this Agreement.
25
26
27
28

1 27. WAIVER OF RIGHTS

2
3 Any waiver at any time by a Party of its rights with
4 respect to a default or any other matter arising in connection
5 with this Agreement shall not be deemed a waiver with respect to
6 any subsequent default or matter.
7

8 28. THIRD PARTY RIGHTS
9

10 This Agreement is for the sole benefit of the Parties
11 and shall not be construed as granting rights to any person other
12 than the Parties other than such provisions affecting the
13 Districts as provided herein or imposing obligations on any party
14 or granting rights to any person other than a Party.
15

16 29. GOOD FAITH
17

18 Each Party shall use its best efforts and work
19 diligently and in good faith to carry out the obligations imposed
20 by this Agreement.
21

22 30. DILIGENCE
23

24 Whenever any act is required to be performed under the
25 terms of this Agreement and the manner in which such act is to be
26 performed is not otherwise specifically detailed, then such act
27 shall be performed in a diligent and timely manner in accordance
28 with Prudent Utility Practice.

1 31. TIME IS OF THE ESSENCE

2
3 Time is of the essence with reference to all provisions
4 of this Agreement.
5

6 32. APPLICABLE LAWS

7
8 Except as otherwise required by law, this Agreement is
9 made under and shall be deemed to be governed by the laws of the
10 State of California or the laws of the United States, as
11 applicable.
12

13 33. EXAMINATION OF RECORDS

14
15 Authorized representatives of each Party will be
16 permitted upon reasonable notice and at reasonable times to visit
17 the offices of the other Party and to examine and copy all
18 records and papers pertaining to this Agreement, provided that
19 any records and papers which are exempt from disclosure shall be
20 properly safeguarded by each Party so as to ensure their
21 continued exempt status.
22

23 34. DELIVERY OF DOCUMENTS AND DATA

24
25 Each Party agrees, upon request by the other Party, to
26 make, execute and deliver any and all documents and data
27 reasonably required to implement this Agreement.
28

1 35. RELATIONSHIP OF THE PARTIES
2

3 The covenants, obligations, and liabilities of each
4 Party are intended to be several and not joint or collective and
5 nothing herein contained shall be construed to create an
6 association, joint venture, trust, or partnership, or to impose a
7 trust or partnership covenant, obligation or liability on or with
8 regard to either Party. Each Party shall be individually
9 responsible for its own covenants, obligations, and liabilities
10 under this Agreement. Neither Party shall be under the control
11 of or shall be deemed to control the other Party. Neither Party
12 shall be the agent of or have the right or power to bind the
13 other Party without its express written consent, except as
14 expressly provided in this Agreement.
15

16 36. ASSIGNMENT
17

18 36.1 All covenants and agreements contained in this
19 Agreement shall inure to the benefit of City and Modesto and
20 their respective successors and assigns; provided, that neither
21 Party may transfer or assign its interest or rights under this
22 Agreement without the written permission of the other Party,
23 which such written permission shall not be unreasonably refused.
24 No such permission shall be required in the case of the transfer
25 or assignment of a Party's interests or rights or the assignment
26 of the security interest therein to the following:
27
28

1 (i) any trustee or secured party, as security
2 for bonds or other indebtedness, present or future, and such
3 trustee or secured party may, if so empowered, sell or otherwise
4 realize upon such security in foreclosure or other suitable
5 proceedings, possess or take control thereof or cause a receiver
6 to be appointed with respect thereto and otherwise succeed to all
7 interests and rights of the Party making the assignment;
8

9 (ii) any entity acquiring all or substantially
10 all the property of the Party making the transfer; or
11

12 (iii) any entity into which or with which the
13 Party making the transfer may be merged, consolidated or
14 affiliated.
15

16 36.2 Notwithstanding the provisions of Section 36.1,
17 neither Party may transfer or assign its rights or obligations
18 for the purchase or sale of Power unless such transfer or
19 assignment does not violate the terms and conditions of the Raker
20 Act.
21

22 37. AMENDMENT
23

24 37.1 Except as provided for expressly herein, neither
25 this Agreement nor any terms hereof may be amended, supplemented,
26 waived or modified except by an instrument in writing executed by
27 the City's General Manager of Public Utilities and Modesto's
28 Chief Executive Officer.

1 37.2 Any amendment, supplement or modifications to any
2 appendix to this Agreement shall not constitute an amendment of
3 this Agreement. Such amendments, supplements or modifications
4 shall become effective upon approval by the City's General
5 Manager of Public Utilities and Modesto's Chief Executive
6 Officer.
7

8 38. EXTENT OF AGREEMENT
9

10 This Agreement represents the entire and integrated
11 agreement between City and Modesto and supersedes all prior
12 negotiations, representations or agreements, either written or
13 oral, unless specifically incorporated into this Agreement by
14 writing contained herein.
15

16 39. CONSTRUCTION
17

18 Ambiguities in the wording of this Agreement shall not
19 be construed for or against either Party arbitrarily but shall be
20 construed in the manner which most accurately reflects the intent
21 of the Parties at the time of execution of this Agreement and is
22 otherwise consistent with the nature of the obligations of the
23 Parties with respect to the matter being construed.
24

25 40. CAPTIONS
26

27 All indexes, titles, subject headings, section titles
28 and similar items are provided for the purpose of reference and

1 convenience and are not intended to affect the meaning of the
2 contents or scope of this Agreement.
3

4 41. PUBLICITY
5

6 In all media releases and reports that are issued or
7 prepared for this project, City and Modesto shall use reasonable
8 efforts to mention both Parties.
9

10 42. NOTICES
11

12 Any notice, demand or request provided for in this
13 Agreement shall be in writing and shall be deemed properly
14 served, given or made if delivered in person or sent by first
15 class United States mail, postage prepaid, to:
16

17 To City: General Manager
18 Hetch Hetchy Water and Power
19 City and County of San Francisco
20 1155 Market Street
21 San Francisco, California 94103

22 To Modesto: Chief Executive Officer
23 Modesto Irrigation District
24 1231 Eleventh Street
25 P.O. Box 4060
26 Modesto, California 96352
27
28

1 The names and addresses of the above recipients may be changed by
2 appropriate notice from one Party to the other.
3

4 IN WITNESS WHEREOF, the Parties have caused this Agreement
5 to be executed in triplicate by their respective officers
6 thereunto duly authorized this ____ day of _____, 1987.
7

8 OFFICE OF THE MAYOR OF THE
9 CITY AND COUNTY OF SAN FRANCISCO

MODESTO IRRIGATION
DISTRICT

10 By _____
11 DIANNE FEINSTEIN
12 Mayor

By _____
President

By _____
Secretary

13 PUBLIC UTILITIES COMMISSION OF THE
14 CITY AND COUNTY OF SAN FRANCISCO

15 By _____
16 DONALD J. BIRRER
17 General Manager
Public Utilities Commission

18 Authorized by Public Utilities
19 Commission

APPROVED AS TO FORM:

LOUISE H. RENNE
City Attorney

20 Resolution No. _____

By _____
GEORGE E. KRUEGER
Utilities General
Counsel

22 Adopted: _____

24 Attest:

25 _____
26 ROMAINA A. BOLDRIDGE
27 Secretary
28

APPENDICES

APPENDIX

A INITIAL FORECAST AND NOTICE

B SCHEDULING

C BILLING

D CLASS 1 RATE METHODOLOGY

E RATE ESCALATION MECHANISM
CLASS 3 POWER RATES

F CAPACITY RATINGS

G OPERATING CRITERIA

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APPENDIX A

INITIAL FORECAST AND NOTICE

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APPENDIX A
INITIAL FORECAST AND NOTICE

1988	1989	1990	1991	1992	DISTRICTS' ANNUAL FIRM CAPACITY (MW)
OPTIONAL MONTHLY FIRM CAPACITY (MW)	OPTIONAL MONTHLY FIRM CAPACITY (MW)	OPTIONAL MONTHLY FIRM CAPACITY (MW)	OPTIONAL MONTHLY FIRM CAPACITY (MW)	OPTIONAL MONTHLY FIRM CAPACITY (MW)	
CITY MONTHLY MAXIMUM CAPACITY (MW)	CITY MONTHLY MAXIMUM CAPACITY (MW)	CITY MONTHLY MAXIMUM CAPACITY (MW)	CITY MONTHLY MAXIMUM CAPACITY (MW)	CITY MONTHLY MAXIMUM CAPACITY (MW)	
JAN					1988
FEB					1989
MAR					1990
APR					1991
MAY					1992
JUN					
JUL					
AUG					
SEP					
OCT					
NOV					
DEC					

APPENDIX A
INITIAL FORECAST AND NOTICE

MODESTO'S
ANNUAL FIRM CAPACITY
(MW)

1988	_____
1989	_____
1990	_____
1991	_____
1992	_____

MODESTO'S
OPTIONAL MONTHLY FIRM CAPACITY
(MW)

	1988	1989	1990	1991	1992
JAN	_____	_____	_____	_____	_____
FEB	_____	_____	_____	_____	_____
MAR	_____	_____	_____	_____	_____
APR	_____	_____	_____	_____	_____
MAY	_____	_____	_____	_____	_____
JUN	_____	_____	_____	_____	_____
JUL	_____	_____	_____	_____	_____
AUG	_____	_____	_____	_____	_____
SEP	_____	_____	_____	_____	_____
OCT	_____	_____	_____	_____	_____
NOV	_____	_____	_____	_____	_____
DEC	_____	_____	_____	_____	_____

APPENDIX B

SCHEDULING

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SCHEDULING

City and Modesto shall exchange data and schedule Power from the Project in accordance with this Appendix B.

It is the intent of the Parties that City shall provide Modesto's Firm Capacity and Modesto's Firm Energy in accordance with schedules provided by Modesto which are consistent with the flexibility that would be available during average water years with all Project facilities in operation. Such flexibility shall take into account (i) limitations on the Mountain Tunnel, (ii) potential spill of water that could otherwise be used for generation, and (iii) the necessity to fulfill the Project purpose of supplying the water requirements of the San Francisco Water Department. In any event, the City shall provide capacity up to Modesto's Firm Capacity at any time requested by Modesto. During less than average water years or in the event that Project facilities are not fully operational, City shall purchase from third parties firm Power and support services required to provide Modesto with such scheduling flexibility.

Modesto shall schedule its entitlements consistent with the terms and conditions of the Agreement and shall adhere to the

1 general scheduling parameters as more fully described herein.
2 Further, City and Modesto specifically agree that City shall be
3 deemed to have delivered energy at rates of delivery as agreed
4 upon in the final schedules pursuant to Section 4 and Section 5
5 of this Appendix B.
6

7 2.1 Modesto's Monthly Capacity Factor 8

9 On or before the fifth (5th) day of each calendar month
10 Modesto shall provide written notice to City of the monthly
11 capacity factor selected by Modesto for the succeeding month.
12 Modesto shall plan its monthly firm energy purchases under this
13 Agreement so that (i) the monthly capacity factor for each
14 calendar month shall be within the range of sixty (60) percent
15 and seventy (70) percent, based on Modesto's Annual Firm Capacity
16 and the number of hours in the month for which such monthly
17 capacity factor will be applied and (ii) the resulting energy for
18 the twelve (12) months of each Year equals Modesto's Annual Firm
19 Energy for such Year. When Project water and operating
20 conditions are such that City is assured that Project Power will
21 be sufficient to meet City's Municipal Loads and its firm
22 obligations to Modesto under this Agreement, Modesto may, upon
23 prior written approval of City, select lower or higher monthly
24 capacity factors within a range City determines to be
25 appropriate. In such event, the provisions of (ii) above shall
26 continue to apply. Subject to the foregoing and to Section 7.3.6
27 of the Agreement, and Section 5.2.1 of this Appendix B, the
28 quantity of energy associated with each monthly capacity factor

1 shall constitute City's obligation to supply and Modesto's
2 obligation to purchase Modesto's Firm Energy during such month.
3

4 2.2 Modesto's Minimum Energy Schedules 5

6 Subject to the provisions of Section 5.2.1 of this
7 Appendix B, Modesto shall schedule Modesto's Energy for every
8 half-hour period of each day in amounts equal to or greater than
9 Modesto's Allocated Entitlement of the amount City designates as
10 Districts' minimum schedules. City shall determine such amount,
11 and designate it pursuant to Section 4.1 of this Appendix B, by
12 subtracting City's schedule for each such half-hour for City
13 Municipal Load, Airport Tenants, Assigned Industrial Customers,
14 Norris Industries and other City customers from the amount of
15 Project generation resulting from use of water released to meet
16 water requirements of the San Francisco Water Department. The
17 Parties agree that such generation will not be greater than
18 85 megawatts. If the City substantially increases the water
19 delivery capability of the Project on a permanent basis and
20 substantially increases planned long-term water deliveries, the
21 Parties shall negotiate an appropriate adjustment to the
22 Districts obligations related to minimum generation. City shall
23 use its best efforts to operate Project facilities to minimize
24 the requirements for Districts' minimum generation.
25
26
27
28

1 2.3 Modesto's Maximum Energy Schedules

2
3 Maximum half-hour schedules for Modesto's Energy shall
4 be no greater than the sum of Modesto's Firm Capacity plus
5 Modesto's Excess Capacity. City may limit schedules of Modesto's
6 Energy to an amount no greater than Modesto's Firm Capacity for
7 any period that City forecasts that it may be necessary to
8 purchase support power to supply the total City Municipal Load
9 plus City's firm Power obligations to Districts. During such
10 periods City shall allow Modesto to schedule Modesto's Energy to
11 an amount greater than Modesto's Firm Capacity, provided that
12 Modesto compensate City for additional costs, incurred by City
13 due to meeting such schedules, during other partial peak and peak
14 periods. City shall not support Modesto's Energy schedules above
15 Modesto's Firm Capacity with Spinning Reserve.

16
17 3. HETCH HETCHY EXCESS ENERGY ENTITLEMENTS AND SCHEDULING

18
19 3.1 City's determination of the availability of, and
20 the respective entitlements of the Parties to, Hetch Hetchy
21 Excess Energy are set forth in Sections 7.4.1 and 7.4.2,
22 respectively, of the Agreement. City's principal notification to
23 Districts of its determination shall be through City's initial
24 monthly and weekly preschedules pursuant to Section 4.1 (vi) of
25 this Appendix B. However, if City determines at any time that
26 the amount of such energy has either increased or decreased from
27 amounts in its monthly/weekly final preschedules, City shall
28 timely notify Modesto, and the Parties' respective entitlements

1 shall be promptly adjusted. In any event, Modesto's entitlements
2 shall have no force and effect until Modesto has committed to
3 purchase such entitlements.
4

5 3.2 In accordance with Section 4.2 (iv) of this
6 Appendix B, with its initial monthly preschedule Modesto shall
7 provide City Modesto's best estimate of the amount of Hetch
8 Hetchy Excess Energy it expects it may purchase during the
9 following month. Such estimate shall not be binding upon
10 Modesto. Rather, Modesto shall exercise its option and commit to
11 purchase its entitlement to Hetch Hetchy Excess Energy in whole
12 or in part through its final weekly preschedule to City pursuant
13 to Sections 4.2 and 4.3 (ii) of this Appendix B and at such
14 times, if any, during a Week as City determines and notifies
15 Modesto that there will be more Hetch Hetchy Excess Energy
16 available for that Week than included in City's weekly
17 preschedule. Modesto may change any such purchase commitments
18 during the Week pursuant to Section 5 of this Appendix B.
19

20 3.3 If Hetch Hetchy Generating Capacity or City's
21 Transmission Facilities are not available or are insufficient to
22 meet all energy schedules established pursuant to this
23 Appendix B, City may, with notice pursuant to Section 5.3 of this
24 Appendix B, reduce delivery of all or a part of Modesto's Excess
25 Energy. In that event Modesto may, subject to agreement of the
26 Parties on a mutually acceptable delivery schedule, reschedule
27 such reduced amount of Modesto's Excess Energy for delivery on or
28 before the last day of the next month. In the absence of such

1 agreement, Modesto's commitment to purchase and City's obligation
2 to provide such amounts of Modesto's Excess Energy shall cease.
3

4 4. MONTHLY/WEEKLY PRESCHEDULES
5

6 City and Modesto shall exchange data required for
7 determining, among other things, increases in Modesto's Optional
8 Monthly Firm Capacity, Modesto's Additional Firm Capacity and
9 Modesto's Excess Energy (weekly preschedules only) and for
10 developing City's monthly/weekly preschedules. It is recognized
11 that several iterations between City and Districts may be
12 required in the development of such preschedules in order to best
13 match Hetch Hetchy Generating Capacity with the requirements of
14 City and Districts. Half-hour monthly preschedules to be
15 provided pursuant to this Section 4 may mean half-hour
16 preschedules for typical week days Monday through Friday,
17 Saturdays, and Sundays and holidays. If City anticipates
18 substantial variations in the availability of Hetch Hetchy Excess
19 Energy between Weeks or partial Weeks of the month, City shall
20 include in its monthly preschedule the amount of such energy City
21 expects will be available in each such period. Modesto shall
22 take such expected availability into account in its monthly
23 preschedule. Weekly preschedules shall be for each half-hour of
24 the Week. Each monthly and weekly preschedule shall include
25 daily, weekly and monthly energy totals for those days for which
26 half-hour preschedules are listed.
27
28

1 4.1 City Initial Monthly/Weekly Preschedule
2

3 Not later than fifteen (15) Work Days before the
4 end of each calendar month, and on or before 1000 hours on
5 Wednesday of each Week or the immediately preceding Work Day if
6 Wednesday, Thursday or Friday is a holiday, City shall provide
7 Modesto with City's initial monthly/weekly preschedule for the
8 next succeeding month/Week, as follows:
9

10 (i) Maximum Hetch Hetchy Generating Capacity
11 including any known or expected limitations
12 as to its availability;
13

14 (ii) Estimated half-hour minimum Hetch Hetchy
15 generation;
16

17 (iii) Estimated Hetch Hetchy total energy
18 generation;
19

20 (iv) Half-hour preschedule for City Municipal
21 Load;
22

23 (v) Half-hour preschedule of Hetch Hetchy Excess
24 Energy for Airport Tenants;
25

26 (vi) Estimated or declared amount of Hetch Hetchy
27 Excess Energy available to Districts;
28

(vii) Modesto's Optional Monthly Firm Capacity
(previously committed for purchase by
Modesto);

(viii) Available uncommitted Optional Monthly
Firm Capacity; and

(ix) Available Additional Firm Capacity (weekly
preschedule only).

Solely for the purpose of facilitating the
preparation of the above monthly and weekly preschedules, City
shall provide an illustrative example (for a typical Week of the
month, and for weekly preschedules for the ensuing Week) of the
amount of Hetch Hetchy Generating Capacity available for
Districts' schedules in each half-hour period after City's
providing service to City Municipal Load, and to Airport Tenants
to the extent Hetch Hetchy Excess Energy is available for that
purpose. The example will assume that Districts will desire to
schedule all energy to which they are entitled during heavy load
hours, to the extent possible within Hetch Hetchy Generating
Capacity.

4.2 Modesto's Initial Monthly/Weekly Preschedule

Not later than ten (10) Work Days before the end
of each calendar month, and on or before 1000 hours on Thursday
of each Week or the immediately preceding Work Day if Thursday or

1 Friday is a holiday, Modesto shall provide City with Modesto's
2 initial monthly/weekly preschedule for the next succeeding
3 month/Week, as follows:
4

5 (i) Modesto's Optional Monthly Firm Capacity
6 purchase commitment in excess of that
7 included in City's preschedule data pursuant
8 to Section 4.1 (vii) of this Appendix B;
9

10 (ii) Half-hour maximum amount of Modesto's
11 Additional Firm Capacity purchase commitment
12 for each day (weekly preschedule only);
13

14 (iii) Half-hour preschedule of Modesto's Energy, at
15 rates of delivery up to the sum of Modesto's
16 Firm Capacity plus Modesto's Excess Capacity
17 subject to the provisions of Section 2 of
18 this Appendix B;
19

20 (iv) In Modesto's monthly preschedule, Modesto's
21 initial best estimate of the total amount of
22 Hetch Hetchy Excess Energy it expects it may
23 purchase during the month. In Modesto's
24 weekly preschedule, Modesto's Excess Energy
25 purchase commitment for the Week, subject to
26 increase or decrease pursuant to Sections 3.2
27 and Section 5 of this Appendix B. When a
28 month ends on other than a Saturday,

1 Modesto's commitment to purchase Hetch Hetchy
2 Excess Energy for that Week, and changes
3 therein, shall be made in two parts; one
4 shall be for the days in the last partial
5 Week of that month and the other for the days
6 in that Week in the first partial Week in the
7 following month;

8
9 (v) Half-hour preschedule of Modesto's intent, if
10 any, to interrupt City's use of Hetch Hetchy
11 Excess Capacity pursuant to Section 8.3 of
12 the Agreement; and

13
14 (vi) Half-hour preschedule of Modesto's Excess
15 Capacity for Spinning Reserve.

16
17 4.3 Final Monthly/Weekly Preschedule

18
19 4.3.1 Not later than seven (7) Work Days
20 before the end of each calendar month, and on or before 1000
21 hours on Friday of each Week or the immediately preceding Work
22 Day if Friday is a holiday, City and Modesto shall exchange and
23 develop data for City's final monthly/weekly preschedule, which
24 shall include, in addition to data exchanged pursuant to
25 Section 4.1 and 4.2 of this Appendix B, the following:
26
27
28

1 (i) Changes in initial preschedules;

2
3 (ii) Half-hour preschedules of Modesto's
4 Energy at rates of delivery up to the
5 sum of Modesto's Firm Capacity and
6 Modesto's Excess Capacity, subject to
7 provisions of Section 2 of this
8 Appendix B;

9
10 (iii) City's half-hour preschedules of excess
11 energy for Norris Industries, Assigned
12 Industrial Customers and other City
13 customers;

14
15 (iv) City's half-hour preschedule of Hetch
16 Hetchy Excess Capacity for Spinning
17 Reserve; and

18
19 (v) Modesto's half-hour preschedule of
20 Hetch Hetchy Excess Capacity for
21 Spinning Reserve.

22
23 4.3.2 Not later than five (5) Work Days before the
24 end of each calendar month, and on or before 1400 hours each
25 Friday or the immediately preceding Work Day if Friday is a
26 holiday, City shall transmit to Modesto a copy of the final
27 monthly/weekly preschedule.
28

1 4.3.3 The final weekly preschedule prepared by the
2 Parties pursuant to this Section 4 shall be binding upon the
3 Parties and become their respective daily operational schedules
4 unless properly adjusted pursuant to Section 7.3.6 of the
5 Agreement, or Section 3.3 or Section 5 of this Appendix B.
6

7 5. ADJUSTMENTS TO WEEKLY PRESCHEDULES
8

9 The Parties may adjust the final weekly preschedules
10 throughout the Week pursuant to this Section 5. Unless
11 adjustments are required by unforeseeable circumstances, they
12 normally will be made by the Parties and reflected in appropriate
13 revised daily operational schedules before 1400 hours on the Work
14 Day preceding the day of operation to which such schedules are
15 applicable.
16

17 5.1 Modesto's Increases in Schedules
18

19 If Modesto wishes to increase the amount of energy
20 which is available to it for scheduling during a Week, and there
21 is Hetch Hetchy Excess Energy in excess of City's entitlement of
22 up to one-half of the Hetch Hetchy Excess Energy for the Week
23 limited to the Airport Tenants, Modesto may purchase Modesto's
24 Allocated Entitlement of such available Hetch Hetchy Excess
25 Energy. Modesto will provide notice to City of the amount of
26 such energy, in kilowatthours, Modesto desires to purchase and
27 the associated changes in Modesto's half-hour operational
28 schedules.

1 5.2 Modesto's Decreases in Schedules

2
3 5.2.1 Modesto may at any time decrease its
4 schedule of minimum generation by advance notice to City of
5 forfeiture of Modesto's rights to an amount of Modesto's Energy
6 equal to the amount of the decrease. In its notice, Modesto
7 shall specify the half-hour period or periods to which such
8 decreases apply and the total amount of energy, in kilowatthours,
9 it forfeits. Such forfeiture shall be deemed to be of Modesto's
10 Excess Energy, if Modesto's Excess Energy is available during the
11 Week or partial Week of Modesto's notice. Otherwise, it shall be
12 Modesto's Firm Energy. If such forfeiture is a part of Modesto's
13 Firm Energy, Modesto shall pay City the positive difference
14 between (a) the product of the energy Modesto forfeits and City's
15 Class 3 firm energy rate to Modesto applicable at the time, and
16 (b) City's revenues associated with the sale of such forfeited
17 energy.
18

19 5.2.2 If Modesto wishes to release all or a part
20 of Modesto's Excess Energy to decrease the amount of energy it
21 has included in its schedule pursuant to Section 4.3 of this
22 Appendix B, it shall notify City of the amount of the decrease,
23 in kilowatthours, and the resulting changes in Modesto's half-
24 hour operational schedules. If, or to the extent that, City
25 determines that the water associated with all or a part of the
26 Modesto Excess Energy so released cannot be conserved in Project
27 reservoirs or used for generation and sold to Airport Tenants,
28 Norris Industries, Assigned Industrial Customers or other City

1 customers, Modesto shall be obligated to purchase such energy to
2 the extent that such energy was prescheduled by Modesto.

3
4 5.3 Notice of Adjustments

5
6 Normally changes in daily operational schedules
7 will be made by 1400 hours on the Work Day preceding the day of
8 operation. Provisions of the following subsections of this
9 Section 5.3 are available to the Parties primarily to meet
10 contingencies and unforeseen circumstances.

11
12 5.3.1 City and Modesto may make adjustments to
13 daily operational schedules for the day of operation on notice
14 provided not less than fifteen (15) minutes before the half-hour
15 of operation.

16
17 5.3.2 City and Modesto may each make one
18 adjustment in half-hour schedules on notice provided not more
19 than fifteen (15) minutes into the half-hour of operation.

20
21 5.3.3 Modesto may make adjustments to its daily
22 operation schedules at anytime during the half-hour should
23 emergency conditions on Modesto's system require a change in
24 Modesto's schedule of Hetch Hetchy Power.

1 5.4 Interruption of City Schedules
2

3 Modesto shall provide City as much advance notice as
4 possible prior to interrupting, pursuant to Section 8.2 of the
5 Agreement, City's use of Hetch Hetchy Excess Capacity. However,
6 such interruptions may occur pursuant to Section 5.3 of this
7 Appendix B. No such interruption shall change Modesto's
8 entitlement to Hetch Hetchy Excess Energy. Modesto promptly
9 shall provide City changes in Modesto's half-hour daily
10 operational schedules resulting from the availability to Modesto
11 of such capacity.
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APPENDIX C

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1 APPENDIX C

2
3 BILLING

4
5 Billings for services rendered pursuant to this
6 Agreement shall be calculated as follows:
7

8
$$A = (B \times C) + (D \times E) + (F \times G) + [(H + I - D) \times J] +$$

9
$$[\sum (K \times L)] + (M \times N) + (O) + (P) + (Q)$$

10

11 where:

- 12
13 A is the monthly billing in dollars;
14 B is the monthly kWh of Modesto's Class 1 energy,
15 pursuant to Section 15.1.1;
16 C is the Class 1 energy rate in \$/kWh, pursuant to
17 Section 16.1;
18 D is the monthly kW of Modesto's Class 1 demand, pursuant
19 to Section 15.1.2;
20 E is the Class 1 demand rate in \$/kW-mo, pursuant to
21 Section 16.1;
22 F is the monthly kWh of Modesto's Class 3 firm energy,
23 pursuant to Section 15.2.1 and Section 15.2.2.
24 G is the Class 3 firm energy rate in \$/kWh, pursuant to
25 Section 16.2;
26 H is Modesto's Annual Firm Capacity, in kW, pursuant to
27 Section 7.2.2;
28

- 1 I is Modesto's Optional Monthly Firm Capacity, in kW,
2 pursuant to Section 7.2.3;
- 3 J is the Class 3 demand rate in \$/kW-mo, pursuant to
4 Section 16.2;
- 5 K is the maximum amount of Modesto's Additional Firm
6 Capacity scheduled daily, in kW, pursuant to Section
7 7.2.4;
- 8 L is the Modesto's Additional Firm Capacity rate in \$/kW-
9 day, pursuant to Section 16.2;
- 10 M is the monthly kWh of Modesto's Excess Energy committed
11 by Modesto, pursuant to Section 7.4.2;
- 12 N is the Hetch Hetchy Excess Energy rate, in \$/kWh,
13 pursuant to Section 16.3;
- 14 O is the additional net energy cost incurred by City, in
15 dollars, as a result of interruption by Modesto of
16 City's schedules of Hetch Hetchy Excess Energy for
17 Airport Tenants, pursuant to Section 8.2.3;
- 18 P is the reserve support charge to be paid by Modesto
19 pursuant to Section 16.4; and
- 20 Q revenue loss incurred by City as a result of Modesto's
21 forfeiture of Modesto's Firm Energy pursuant to
22 Section 5.2.1 of Appendix B.

23

24 Energy quantities F or M may be deemed to include
25 energy generated using Modesto's Spinning Reserve, pursuant to
26 Section 8.3.3. Further, energy quantity F shall be subject to
27 the provisions of Section 7.3.4.

28

1 Compensation to City by Modesto for losses associated
2 with Modesto's use of excess capacity of City's Transmission
3 Facilities pursuant to Section 9.2 will be made as agreed by the
4 Parties.
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APPENDIX D

CLASS 1 RATE METHODOLOGY

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1 APPENDIX D

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3 CLASS 1 RATE METHODOLOGY
4

5 Rates as prescribed by the Raker Act for Class 1 Hetch
6 Hetchy Power delivered to Modesto and Turlock shall be developed
7 annually for the term of this Agreement.
8

9 The following is intended to provide the general
10 methodology for the determination of such Class 1 rates.
11 Attached is a table showing the example calculation in support of
12 the 1987-88 Class 1 rates; this table can be utilized to
13 determine specific cost categories to be included or excluded.
14

15 The elements of Power related costs reimbursable
16 pursuant to the Raker Act shall include reasonable, projected
17 values for:
18

- 19 (i) Hydraulic Power Generation Expenses;
20 (ii) Transmission Expenses;
21 (iii) Administrative and General Expenses;
22 (iv) Fee to U. S. Government;
23 (v) Taxes;
24 (vi) Adjustments for non-operating income;
25 (vii) Capital outlays and debt service, provided that
26 Districts shall not pay for the same item under
27 both capital outlays and as a debt service cost.
28

1 Using the above methodology, the rates for Class 1
2 power for April 1, 1988 through June 30, 1988 are as follows:
3

4 Demand: \$2.09 per kW month

5 Energy: \$0.00330 per kWh
6

7 By agreement of the Parties, the rates for Class 1
8 power shall be the above amounts as determined each Year
9 multiplied by 1.02, or
10

11 Demand: \$2.13 per kW month

12 Energy: \$0.00337 per kWh
13
14
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	CHARGE
BILLING DIFFERENTIALS	
DEMAND - kW-mo	\$ 644,000
ENERGY - MWh	1,869,600
	\$ 3.20

APPENDIX E

RATE ESCALATION MECHANISM

CLASS 3 POWER RATES

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1. Introduction

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2. Escalation Method

On July 1, 1988 and each July 1 thereafter for the term of this Agreement, the rates for Class 3 Demand and energy will be adjusted by the following formula:

$$\text{Hetch Hetchy Rates}_n = \text{Base Hetch Hetchy Rates} \times \text{Annual Index}_n$$

where:

Base Hetch Hetchy Rates are those Demand and energy rates which have been agreed upon for Class 3 Power delivered to Modesto and Turlock during the period July 1, 1985 through June 30, 1986 under the Interim Agreement.

"n" is the index year.

$$\text{Annual Index}_n = \frac{Y_n}{Y_{\text{base}}}$$

Where:

Y_n is the projected PG&E Electric System Average Energy Cost (mills per kWh) in the index year.

1 Y_{base} is the PG&E Electric System Average Energy Cost
2 (mills per kWh) in the base year, 1985 as adjusted
3 pursuant to Section 2.3 of this Appendix E.
4

5 The estimate for Y_n will be derived using a simple
6 linear regression model utilizing actual, historic PG&E data.
7 The five previous calendar years' actual PG&E Electric Operating
8 Revenues and Total Energy Sales, as reported in the Operating
9 Statistics of PG&E in SEC Form 10-K will be used to project the
10 PG&E Electric System Average Energy Cost for the subsequent
11 (index) year. The Projected PG&E Electric System Average Energy
12 Cost (Y_n), when divided by the adjusted PG&E Electric System
13 Average Energy Cost for the base year (Y_{base}) will provide an
14 index multiplier (Annual Index $_n$) for the projected year. The
15 Annual Index $_n$, when multiplied times the Base Hetch Hetchy Rates
16 will determine the new rates to be applied to Class 3 Power
17 delivered to Modesto and Turlock for the period July 1 of the
18 index year through June 30 of the subsequent year.
19

20 2.1 The Regression Model 21

22 The equation which projects the PG&E operating revenues
23 per kWh for the year to be estimated will be of the form:
24

$$25 \qquad Y = A + BX$$

26
27
28

1 where:

2
3 "A" is the y-axis intercept

4 "B" is the slope of the line

5
6 and:

7
8
$$B = \frac{\sum x_i y_i - 3 \sum y_i}{10}$$

9
10
11
$$A = \frac{\sum y_i}{5} - 3B$$

12
13
14 where:

15
16 "i" denotes each of the five historical years preceding
17 the index year.

18
19 $x_i = 1 \dots 5$

20
21 y_i is PG&E's actual operating revenue per kWh for each
22 of the five years preceding the index year.

23
24 2.2 Worksheet

25
26 To facilitate the calculation of y_n , and subsequently
27 the Annual Index_n and Hetch Hetchy Rates_n, the worksheet attached
28 (Attachment 1) has been provided.

1 2.3 Adjusted Base PG&E Electric System Average Energy Cost

2 The 1985 PG&E Electric Department Operating Statistics
3 will determine the base year PG&E Electric System Average Energy
4 Cost (Y_{base}). However, the 1985 Electric Department Operating
5 Revenues, as reported in SEC Form 10-K will be adjusted to
6 include seventy-five (75) percent of the net effect on PG&E
7 Electric Department Operating Revenues of including Diablo Canyon
8 Units 1 and 2 (Diablo Canyon) in the PG&E system.

9
10 The net effect of including Diablo Canyon in PG&E's
11 Electric Department Operating Revenues will be consistent with
12 the costs and fuel savings associated with Diablo Canyon as
13 ultimately approved by the California Public Utilities Commission
14 (CPUC). The costs for Diablo Canyon will include the CPUC
15 approved investment related costs and operating (or non-
16 investment related) expenses, excluding fuel, on an annualized
17 basis. Costs for Diablo Canyon will be offset by the estimated
18 annualized test year fuel savings which are ultimately approved
19 by the CPUC.

20
21 Seventy-five (75) percent of the difference, if any,
22 between the CPUC ultimately approved annualized costs and fuel
23 savings of Diablo Canyon will be added to the actual PG&E
24 Electric Department Operating Revenues for 1985. Should the CPUC
25 allow PG&E to recover any net costs of Diablo Canyon during a
26 portion of calendar year 1985, such approved recovery of net
27 costs will be subtracted from the actual PG&E Electric Department
28

1 Operating Revenues for 1985 prior to the addition of the
2 adjustment previously described.

3
4 The calculated adjusted PG&E Electric Department
5 Operating Revenues for 1985 will be used in the determination of
6 Y_{base} . The adjusted PG&E Electric Department Operating Revenues
7 for 1985 will also be used in lieu of actual 1985 PG&E Electric
8 Department Operating Revenues in the determination of Y_n in
9 subsequent years. If the CPUC has not approved a final
10 determination of annualized costs and fuel savings for Diablo
11 Canyon Units 1 and 2 prior to the dates of adjustment of Class 3
12 Demand and energy rates, then the City, Modesto and Turlock shall
13 utilize an estimated adjusted 1985 PG&E Electric Department
14 Operating Revenues value in the calculation of the annual
15 index. The estimated adjusted 1985 PG&E Electric Department
16 Operating Revenues value shall include the Parties' best estimate
17 of the probable CPUC decision regarding the costs and fuel
18 savings for Diablo Canyon Units 1 and 2.

19
20 If a final CPUC determination of Diablo Canyon costs
21 and fuel savings differs from that assumed, subsequent Hetch
22 Hetchy Class 3 rate adjustments shall include retroactive
23 recovery or return of over or under collections, with interest.

24 25 2.4 Interest on Over or Under Collections

26
27 It is agreed that interest on over or under collections
28 under Class 3 rates, due to the effect of estimating the net

1 costs and fuel savings for Diablo Canyon, shall be paid or
2 credited as a surcharge or adjustment to the regular monthly
3 bills. All such surcharges or credits shall be computed based on
4 a one year period for amortization of the adjustment amount and
5 shall be computed in the same manner as the Federal Energy
6 Regulatory Commission (FERC) refund rate calculation specified in
7 Title 18 Conservation of Power and Water Resources, Chapter 1,
8 paragraph 35.19a subparagraph 2(iii)(A). If the FERC should
9 modify this section of Title 18, then the interest calculation
10 shall be modified accordingly.
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ATTACHMENT 1

RATE ESCALATION WORKSHEET
CLASS 3 HETCH HETCHY POWER RATES

1. Determination of Y_n

	(1)	(2)	(3)	(4)	(5)
Year	x_i	Total Operating Revenue (\$000)	Total Energy Sales (GWH)	y_i (2) (3)	$x_i y_i$ (1) x (4)
	1				
	2				
	3				
	4				
	5				
	15			(a)	(b)

Notes: (2) and (3), SEC Form 10-K

All calculations to be computed to 4 places after the decimal

$$B = \frac{\sum x_i y_i}{10} - 3 \frac{\sum y_i}{10} = \frac{(b) - 3(a)}{10} =$$

$$A = \frac{\sum y_i}{5} - 3B = \frac{(a)}{5} - 3B =$$

$$Y_n = A + BX, \text{ Where } X = 6$$

$$Y_n = A + 6B =$$

2. Determination of Annual Index_n

$$\text{Annual Index}_n = \frac{Y_n}{Y_{\text{base}}} =$$

3. Determination of Hetch Hetchy Rates_n

$$\text{Energy Rate}_n = 23.70 \text{ mills/kWh} \times \text{Annual Index}_n =$$

$$\text{Demand Rate}_n = \$5.96/\text{kw-month} \times \text{Annual Index}_n =$$

APPENDIX F

CAPACITY RATING

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CAPACITY RATING

CAPACITY RATING

- TABLE 1

PDC_{new} = Sum of the Capacity Ratings in Table 1 of this Appendix F of the City units (or plants) remaining in service or 260.0 MW ($PDC_{current}$) whichever is less.

1 3. Table 1 of this Appendix F reflects Capacity Ratings of
2 City plants when entire units are out of service. In
3 the event that a unit or units of a City plant are
4 operating at reduced levels because of partial outages,
5 Capacity Ratings which reflect such partial outages
6 shall be used in lieu of the values in Table 1 of this
7 Appendix F.
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APPENDIX G

OPERATING CRITERIA

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1 APPENDIX G

2
3 OPERATING CRITERIA

4
5 In order to provide a firm yield of water and power from its
6 Hetch Hetchy Project, City intends to operate the Project as
7 follows:

8
9 1. Minimum Storage Criteria

10
11 Unless required to be less in order to meet Minimum
12 Project Energy as specified in Sections 3 or 4 of this Appendix G
13 or except as provided in Section 2 of this Appendix G City shall
14 operate to maintain, at a minimum, reservoir storage (acre-feet)
15 at the end of each month as follows:

16
17

	<u>Hetch Hetchy</u>	<u>Reservoirs</u> <u>(Acre-feet)</u>	<u>Lloyd-Eleanor</u>
18			
19	Jan	173,600*	129,300
20	Feb	158,500*	126,400
21	Mar	152,000*	132,600
22	Apr	161,900*	151,300
23	May	254,500*	193,800
24	Jun	270,000	183,800
25	Jul	287,500	165,800
26	Aug	260,900	153,000
27	Sep	232,700	152,000
28	Oct	226,300	151,100
	Nov	217,400	150,300
	Dec	197,100*	143,000

*See Section 2 of this Appendix G

2. Hetch Hetchy Reservoir Operation in Years With Adequate
Runoff

Hetchy Hetchy Reservoir storage at the end of those months in Section 1 of this Appendix G marked with an asterisk (*) may be less than the minimums shown when, based upon the best available information, the specified minimum storage for the succeeding end of June will be exceeded. The following guidelines shall be used to determine the amount, if any, by which the end-of-month storage may be less than specified:

- (a) If, in any year, the accumulated precipitation from October 1, through November 30, measured at Hetch Hetchy is greater than 8.2 inches, Hetch Hetchy Reservoir end-of-December storage can be reduced to 167,500 acre-feet (15% below Minimum Storage Criteria).
- (b) If, in any year, the accumulated precipitation from October 1 through December 31, measured at Hetch Hetchy Reservoir is greater than 8.9 inches, Hetch Hetchy Reservoir end-of-January storage can be reduced to 147,600 acre feet (15% below Minimum Storage Criteria).
- (c) If at February 1, or the first of any of the next succeeding three (3) months, California Department of Water Resources "Water Conditions in

California" forecast of runoff into Hetch Hetchy Reservoir is such that, after allowing for fish releases and releases through Kirkwood Powerhouse, there is estimated to be sufficient water to fill Hetch Hetchy Reservoir, then Hetch Hetchy Reservoir storage may be reduced up to twenty-five (25) percent below the Minimum Storage Criteria specified in Section 1 of this Appendix G for the end of that month.

3. Minimum Project Energy - Normal Operation

City shall make releases from its reservoirs to produce the following Minimum Project Energy for each month except in the event of a Forced Outage.

Minimum Project Energy
(Megawatt-Hours)

	<u>Non-dry Years</u>	<u>Dry Years**</u>
Jan	89,020	75,590
Feb	80,230	67,860
Mar	88,560	74,700
Apr	85,990	72,710
May	90,540	75,890
June	87,600	74,340
July	90,080	76,540
Aug	89,580	75,960
Sep	86,240	72,830
Oct	88,570	74,640
Nov	85,170	71,680
Dec	87,310	74,180
Year	1,048,890	886,920

** A Dry year occurs when the combined storage of Hetch Hetchy Reservoir and Lloyd-Eleanor Reservoir at the beginning of January is less than 200,000 acre-feet.

1 4. Minimum Project Energy - Forced Outage

2
3 In any month where there is a Forced Outage at a City
4 plant the amount of Minimum Project Energy shall be reduced by:

5
6 ER = RPC x Kplant x percentage of month City
7 plant is on Forced Outage.

8
9 where:

10
11 ER = Reduction in Minimum Project
12 Energy in megawatt-hours

13
14 RPC = Amount in MW that PDC has been reduced by
15 the individual Forced Outage, pursuant to
16 the adjustment determined in Section
17 6.3, provided, however, that for
18 purposes of determining the reduction
19 in Minimum Project Energy, PDC will be
20 assumed to be reduced immediately at the
21 time of the Forced Outage at the City
22 plant.

23
24 Kplant = kWh/kW value from the following table
25
26
27
28

"Kplant" for Non-dry years

Powerhouse

	<u>Kirkwood</u>	<u>Moccasin</u>	<u>Holm</u>
Jan	452	305	225
Feb	409	277	203
Mar	452	305	225
Apr	438	296	217
May	452	305	224
Jun	438	296	216
Jul	452	305	224
Aug	452	305	224
Sep	437	296	217
Oct	452	305	225
Nov	438	296	218
Dec	452	305	226

"Kplant" for Dry years**

Powerhouse

	<u>Kirkwood</u>	<u>Moccasin</u>	<u>Holm</u>
Jan	362	244	226
Feb	327	221	205
Mar	362	244	227
Apr	350	236	219
May	362	244	226
Jun	350	236	218
Jul	362	244	226
Aug	362	244	227
Sep	350	236	220
Oct	362	244	228
Nov	350	236	221
Dec	362	244	228

**See Section 3 of this Appendix G.

APPENDIX H

REDETERMINATION OF PDC

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1 (c) Maximum storage level in Lloyd-Eleanor Reservoir
2 is 307,000 acre-feet and 360,600 acre-feet in
3 Hetch Hetchy Reservoir.
4

5 (d) Reservoir area, storage and elevation curves for
6 Lloyd-Eleanor Reservoir and Hetch Hetchy Reservoir
7 are calculated from a series of equations based on
8 data presented in Table 1 of this Appendix H.
9

10 (e) Reservoir evaporation rates are consistent with
11 those used for Tuolumne River Flow Accounting.
12 Evaporation in acre-feet is obtained by
13 multiplying the reservoir area by the appropriate
14 net depth of evaporation factor.
15

16 Net Depth of Evaporation Factor

17 Jan = -0.00325	Jul = 0.00975
18 Feb = -0.00360	Aug = 0.00975
19 Mar = 0.00000	Sep = 0.00672
20 Apr = 0.00000	Oct = 0.00325
21 May = 0.00325	Nov = 0.00000
22 Jun = 0.00672	Dec = 0.00000

23 (f) Generator output for Holm Powerhouse is determined
24 on the basis of power curves shown on Drawing SK-
25 610330-AKN provided by the City. Maximum plant
26 output as derived from the curves is shown in
27 Table 3 of this Appendix H. Monthly energy
28 production is determined by calculating the kWh/AF
value of the plant associated with the average
Lloyd-Eleanor Reservoir elevation and average
turbine flow rate.

1 (g) Generator output per unit for Kirkwood Powerhouse
2 is determined on the basis of power curves shown
3 on Drawing SK-670809-GGB-4 provided by the City.
4 When Hetch Hetchy Reservoir is not spilling,
5 maximum plant output is limited to a turbine flow
6 rate of 700 CFS. When Hetch Hetchy Reservoir is
7 spilling, maximum plant output is limited to a
8 turbine flow rate of 900 CFS. Monthly energy
9 production is determined by calculating the kWh/AF
10 value of the plant associated with the average
11 turbine flow rate during the month.
12

13 (h) Generator output for Moccasin Powerhouse is a
14 constant value of 90.7 MW and 1,059 kWh/AF based
15 on the 2185 FT curve shown on Drawing SK-720111-
16 TLC-2 provided by the City.
17

18 (i) Fish releases are from the current agreements
19 between California Department of Fish and Game
20 and/or U. S. Fish and Wildlife Service and are as
21 follows:.
22

23 Lloyd-Eleanor Fish Release

24
25 Jan - Jun = 10 cubic feet per second

26 Jul - Sep = 30 cubic feet per second

27 Oct - Dec = 10 cubic feet per second
28

1 Hetch Hetchy Fish Release

2
3 The minimum amount of water to be released from
4 Hetch Hetchy Reservoir to the Tuolumne River is in
5 accordance with Table 2 of this Appendix H. It is
6 assumed that the fish release required below Hetch
7 Hetchy Reservoir is also required below Early
8 Intake.

9
10 (j) A maximum flow limit of 700 cubic feet per second
11 in the Mountain Tunnel. Kirkwood Powerhouse
12 passes no more than 700 CFS unless Hetch Hetchy
13 Reservoir is spilling.

14
15 (k) An Aqueduct demand of 275 MGD in all years except
16 1977 when demand is reduced to 220 MGD.

17
18 (l) Holm flow rate is maintained at 252 cubic feet per
19 second when the Lloyd-Eleanor Reservoir is below
20 Minimum Storage Criteria.

21
22 (m) Monthly inflows to Lloyd-Eleanor and Hetch Hetchy
23 Reservoirs for calendar years 1919-1980 are as
24 supplied by the City.

25
26 In the event of a redetermination pursuant to Section
27 6.2 or Section 6.3 of this Agreement the assumptions listed above
28 shall be updated to consider the event(s) that caused a

redetermination of PDC. The Project capability shall again be based on the modeled operation of the Project during August 1977 unless a different critical water period is applicable pursuant to Section 6.2.6 of this Agreement. PDC shall not exceed the aggregate plant capability and must be supported by the associated Minimum Project Energy for Non-dry and Dry years as determined in the new study. PDC shall be the lesser of the following:

(a) Aggregate plant capability.

(b) $260 \text{ MW} \times (\text{Minimum Project Energy}) / 1,048,890$ for Non-Dry Years.

(c) $260 \text{ MW} \times (\text{Minimum Project Energy}) / 886,920$ for Dry Years.

where:

"Minimum Project Energy" is the minimum energy that is produced by the project for Non-Dry and Dry Years** as defined in Appendix G.

TABLE 1

Hetch Hetchy Reservoir			Lloyd-Eleanor Reservoir		
Elevation	Storage	Area	Elevation	Storage	Area
(Feet)	(Ac-feet)	(Acres)	(Feet)	(Ac-feet)	(Acres)
3,512	0	0	4,400	0	0
3,530	3,300	200	4,480	1,500	310
3,580	39,500	870	4,520	19,700	610
3,620	76,500	980	4,540	38,900	770
3,660	119,900	1,220	4,560	60,800	900
3,700	175,000	1,500	4,580	85,100	1,100
3,720	206,000	1,590	4,620	139,900	1,540
3,740	238,900	1,690	4,640	178,500	2,070
3,760	273,700	1,790	4,660	227,200	2,550
3,780	310,400	1,870	4,680	263,200	2,750
3,800	348,600	1,950	4,700	297,900	3,130
3,810	369,100	1,970	4,705	307,000	3,300

The above elevation-storage data was derived from information published in "USGS Water Resources Data". The surface area data was derived from information presented in the Tuolumne River Flow Accounting. Intermediate data points are calculated by an interpolation routine in the model.

TABLE 2

	Minimum Release Schedules (cfs)			Cumulative Precip. (inches)/runoff (acre-feet)		
	A	B	C	A	B	C
January	50	40	35	8.8	6.1	---
February	60	50	35	14.0	9.5	---
March	60	50	35	18.6	14.2	---
April	75	65	35	23.0	18.0	---
May	100	80	50	26.6	19.5	---
June	125	110	75	28.5	21.3	---
July	125	110	75	575,000	390,000	---
August	125	110	75	640,000	400,000	---
September 1-15	100	80	75	---	---	---
September 16-30	80	65	50	---	---	---
October	60	50	35	---	---	---
November	60	50	35	---	---	---
December	50	40	35	---	---	---

Determination of applicable schedule (A, B, or C) is to be made on the first of each month during January through August. Determinations for January through June are to be based on cumulative precipitation at Hetch Hetchy since October 1 of the preceding year. Determinations for July and August are to be made based on calculated cumulative runoff into Hetch Hetchy since October 1 of the preceding year. The release schedule which is in effect on August 1 of each year shall remain in effect until the following January.

Table 3

<u>Lloyd-Eleanor Reservoir</u>		<u>Holm Powerhouse</u>	
<u>Elevation</u>	<u>Storage</u>	<u>Turbine Flow</u>	<u>Output</u>
<u>(Feet)</u>	<u>(AF)</u>	<u>(CFS)</u>	<u>(MW)</u>
4,480	1,500	830.5	128.0
4,520	19,700	837.8	131.0
4,540	38,900	341.5	133.0
4,560	60,800	845.1	134.5
4,580	85,100	848.7	137.0
4,620	139,900	855.9	140.5
4,640	178,500	859.4	142.0
4,660	227,200	863.0	143.0
4,680	263,200	866.5	145.0
4,700	297,900	870.0	147.0
4,705	307,000	870.9	148.0

Intermediate data points are determined by interpolation.



